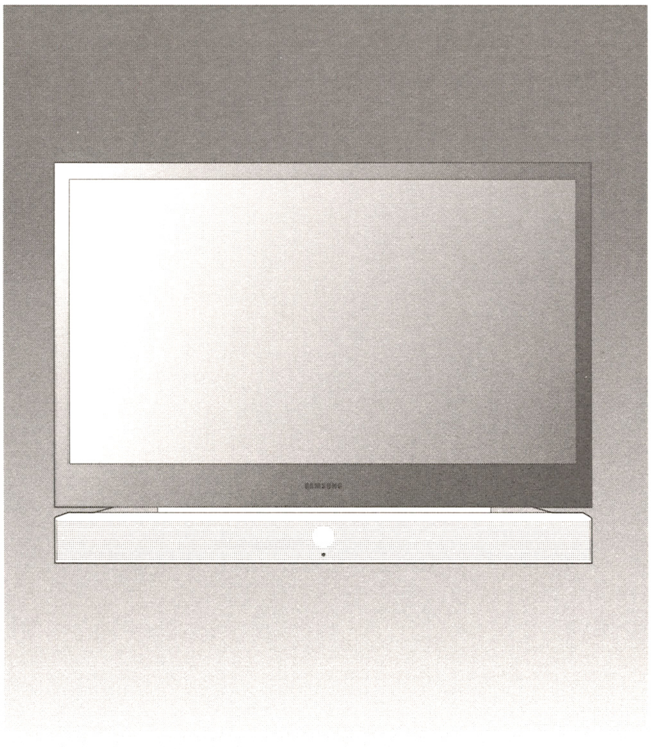
DLP TV

Chassis : M62A(P)Hurricane_Europe
Model : SP61L6HXX/BWT
SP46L6HXX/BWT
SP50L6HXX/BWT

SERVICE Manual

DLP TV



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1. Specifications

MODEL	SP42L6HX	SP46L6HX	SP50L6HX	SP61L6HX
Voltage	AC100V ~ 240V			
Frequency of Operation	50Hz / 60Hz			
Power Consumption	200 Watts			
Colour systems	PAL,SECAM,NTSC4.43			
TV standards	BG,DK,I,L			
DIMENSIONS (W x D x H)	999x331.3x755.5mm	1088x342.5x814.2mm	1182x354x869.7mm	1446x466.5x1056.2mm
Weight	28kg	30.3kg	33kg	42.9kg

MEMO

2. Alignment and Adjustments

2-1 When Entering Service Mode:

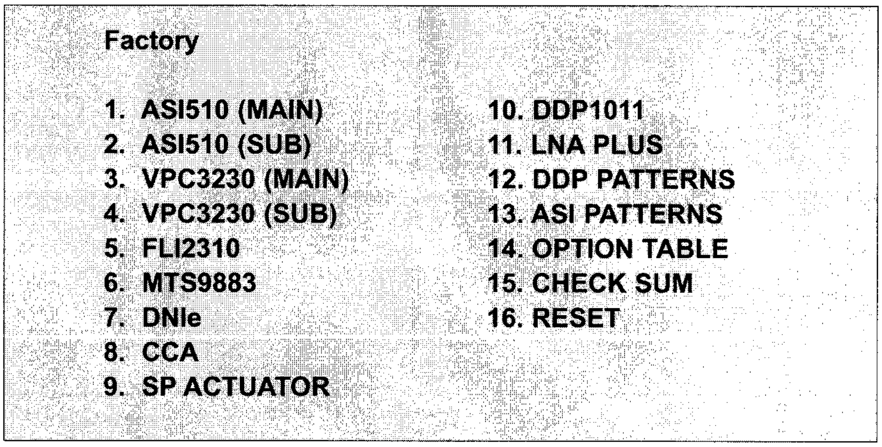
2-1-1 Service Mode Entry Method

1. Turn off the power to make the SET STAND-BY mode.

2. In order to enter the Service Mode, Press "INFO" → "MENU" → "MUTE" → "POWER" button on the Remote Control.
   In case entry into SERVICE MODE is unsuccessful, repeat the procedures above.

2-1-2 Initial DISPLAY State in times of SERVICE MODE Switch overs

2-1-2(A) OSD DISPLAY



Factory

1. ASI510 (MAIN)
2. ASI510 (SUB)
3. VPC3230 (MAIN)
4. VPC3230 (SUB)
5. FLI2310
6. MTS9883
7. DNIe
8. CCA
9. SP ACTUATOR
10. DDP1011
11. LNA PLUS
12. DDP PATTERNS
13. ASI PATTERNS
14. OPTION TABLE
15. CHECK SUM
16. RESET

2-1-2(B) BUTTONS OPERATIONS WITHIN SERVICE MODE

MENU	Full Menu Display / Move to Parent Menu
Direction keys ▲ / ▼	Item Selection by Moving the Cursor
Direction keys ◀ / ▶	Data Increase/Decrease for the Selected Item
Source	Cycles through the active input source that are connected to the unit

2-1-3 Details of Control

1) ASI510 (MAIN)

ITEM NAME	DEFAULT	Range	REMARK
Gamma Red	32	0 ~ 127	
Gamma Green	32	0 ~ 127	
Gamma Blue	32	0 ~ 127	
Sub Color Enable	0	0 ~ 1	
Sub Color	16	0 ~ 1	
Sharpness Filter 1	0	0 ~ 63	
Sharpness Filter 2	0	0 ~ 63	
Sharpness Filter 3	0	0 ~ 63	
Sharpness Filter 4	0	0 ~ 63	
Sharpness Filter 5	0	0 ~ 63	
Sharpness Filter 6	0	0 ~ 63	
Sharpness Filter 7	0	0 ~ 63	
Sharpness Filter 8	0	0 ~ 63	
Sharpness Filter 9	0	0 ~ 63	
Sharpness Filter 10	0	0 ~ 63	
Filter H Limit	3	0 ~ 3	
Filter V Limit	3	0 ~ 3	
Filter H Chroma Limit	3	0 ~ 3	
Filter V Chroma Limit	3	0 ~ 3	
Chroma Filter Enable	0	0 ~ 1	
Noise Filter 0	0	0 ~ 15	
Noise Filter 1	0	0 ~ 15	
Noise Filter 2	0	0 ~ 31	
Noise Filter 3	0	0 ~ 15	
Noise Filter 4	0	0 ~ 15	
Noise Filter 5	0	0 ~ 31	
Noise Filter 6	0	0 ~ 15	
Noise Filter 7	0	0 ~ 15	
Noise Filter 8	0	0 ~ 31	
Noise Filter Enable	0	0 ~ 1	
NR Filter Enable	0	0 ~ 1	

2) ASI510 (SUB)

ITEM NAME	DEFAULT	Range	REMARK
Gamma Red	32	0 ~ 127	
Gamma Green	32	0 ~ 127	
Gamma Blue	32	0 ~ 127	
Sub Color Enable	0	0 ~ 1	
Sub Color	16	0 ~ 1	
Sharpness Filter 1	0	0 ~ 63	
Sharpness Filter 2	0	0 ~ 63	
Sharpness Filter 3	0	0 ~ 63	
Sharpness Filter 4	0	0 ~ 63	
Sharpness Filter 5	0	0 ~ 63	
Sharpness Filter 6	0	0 ~ 63	
Sharpness Filter 7	0	0 ~ 63	
Sharpness Filter 8	0	0 ~ 63	
Sharpness Filter 9	0	0 ~ 63	
Sharpness Filter 10	0	0 ~ 63	
Filter H Limit	3	0 ~ 3	
Filter V Limit	3	0 ~ 3	
Filter H Chroma Limit	3	0 ~ 3	
Filter V Chroma Limit	3	0 ~ 3	
Chroma Filter Enable	0	0 ~ 1	
Noise Filter 0	0	0 ~ 15	
Noise Filter 1	0	0 ~ 15	
Noise Filter 2	0	0 ~ 31	
Noise Filter 3	0	0 ~ 15	
Noise Filter 4	0	0 ~ 15	
Noise Filter 5	0	0 ~ 31	
Noise Filter 6	0	0 ~ 15	
Noise Filter 7	0	0 ~ 15	
Noise Filter 8	0	0 ~ 31	
Noise Filter Enable	0	0 ~ 1	
NR Filter Enable	0	0 ~ 1	

3) VPC3230 (MAIN)

ITEM NAME	Initial Value	Range	REMARK
BRIGHTNESS	20	-128~127	updated when h'40(Scale mode register) is written
H LPF	0	0~3	
H LPF CHROMA	0	0~1	
CONTRAST	42	0~63	updated when h'40(Scale mode register) is written
H PEAKING FILTER	2	0~2	
H PEAKING GAIN	2	0~7	
CORING Enable	0	OFF/ON	
LUMA DELAY	0	Fixel	updated when h'20(SDT) is written
IF compensation	0	0~3	Off/6dB/12dB/10dB
Chroma Bandwidth	1	0~3	narrow/normal/broad/wide
Luma LPF Enable	0	OFF/ON	
HPLL SPEED	2	0~3	No change/ Terrestrial/ VCR/ Mixed
V PEAKING	0	0~15	
YUV CONTRAST	27	0~63	480i YPbPr (Component mode)
YUV BRIGHTNESS	70	-128~127	
YUV SATCB	42	0~63	
YUV SATCR	43	0~63	
YUV TINT	0	0~63	
RGB CONTRAST	29	0~63	Scart RGB (AV mode)
RGB BRIGHTNESS	68	-128~127	
RGB SATCB	26	0~63	
RGB SATCR	30	0~63	
SATURATION	2200	0~4096	
TINT	00		

4) VPC3230 (SUB)

ITEM NAME	DEFAULT	Range	REMARK
BRIGHTNESS	20	-128~127	updated when h'40(Scale mode register) is written
H LPF	0	0~3	
H LPF CHROMA	0	0~1	
CONTRAST	42	0~63	updated when h'40(Scale mode register) is written
H PEAKING FILTER	2	0~2	
H PEAKING GAIN	2	0~7	
CORING Enable	0	OFF/ON	
LUMA DELAY	0	Fixel	updated when h'20(SDT) is written
IF compensation	0	0~3	Off/6dB/12dB/10dB
Chroma Bandwidth	1	0~3	narrow/normal/broad/wide
Luma LPF Enable	0	OFF/ON	
HPLL SPEED	2	0~3	No change/ Terrestrial/ VCR/ Mixed
V PEAKING	0	0~15	
YUV CONTRAST	27	0~63	480i YPbPr (Component mode)
YUV BRIGHTNESS	70	-128~127	
YUV SATCB	42	0~63	
YUV SATCR	43	0~63	
YUV TINT	0	0~63	
RGB CONTRAST	25	0~63	Scart RGB (AV mode)
RGB BRIGHTNESS	68	-128~127	
RGB SATCB	23	0~63	
RGB SATCR	31	0~63	
SATURATION	2200	0~4096	Scart RGB (AV mode)
TINT	00		

5) FLI2310

ITEM NAME	DEFAULT	Range	REMARK
MOTION THRES	30	0 ~ 255	
CONTRAST	128	0 ~ 255	
BRIGHTNESS	128	0 ~ 255	
SATURATION	128	0 ~ 255	
Y OFFSET	0	-1024 ~ 1023	2's complement
Cb OFFSET	0	-1024 ~ 1023	2's complement
Cr OFFSET	0	-1024 ~ 1023	2's complement
NR	1	OFF/ON	OFF : 1, ON : 0

6) MST9883

ITEM NAME	DEFAULT	Range	REMARK
RED GAIN	88	0 ~ 255	
GREEN GAIN	88	0 ~ 255	
BLUE GAIN	88	0 ~ 255	
RED OFFSET	128	0 ~ 255	
GREEN OFFSET	128	0 ~ 255	
BLUE OFFSET	128	0 ~ 255	
PB GAIN	142	0 ~ 255	
Y GAIN	128	0 ~ 255	
PR GAIN	142	0 ~ 255	
PB OFFSET	125	0 ~ 255	
Y OFFSET	106	0 ~ 255	
PR OFFSET	125	0 ~ 255	
Auto Color			

7) DNIe

NO	ITEM	RANGE	DEFAULT	REMARK
1	PATT_SEL		0	Test Pattern Selection
2	SNI_PROC_SET		096B	DNIe Block Enb/Bypass
3	NR_MAX_Y/C	0 ~ 255	48	Temporal NR Gain
4	NR_MIN_Y/C	0 ~ 255	16	Temporal NR Gain
5	NR_HPF_TH	0 ~ 7	00	Spatial NR Gain
6	NR_EDGE_TH	0 ~ 7	05	
7	NR_SEL	0,1,2,3	02	NR Mode Selection
8	NEOnDE	0,1	00	DE Parameter Value Selection
9	NEOnDCE	0,1	00	DCE Parameter Value Selection
10	NEOnCE	0,1	00	CE Parameter Value Selection
11	RTH2	0 ~ 15	08	NEOnDE User Set Up
12	Core	0 ~ 15	04	NEOnDCE User Set Up
13	ALPHAL	0 ~ 255	128	CE Gain
14	ALPHAU	0 ~ 255	128	
15	CE_CUTOFF	0 ~ 255	32	Boundary value for the lowerr part of Contrast Enhance
16	CE_UPPER	0 ~ 255	220	Boundary value for the lowerr part of Contrast Enhance
17	CE Gain Max L/U	0 ~ 255	160	CE Gain
18	DCE_GAIN_L/U	0 ~ 255	50	DCE Gain
19	B_RATIO		10000	Low level information for the minimum value
20	BLACK_TILT	0 ~ 255	120	Black Stretch Area
21	Black Gain Max	0 ~ 1023	358	
22	W_RATIO	~	12000	High level information for the minimum value
23	WHITE_TILT	0 ~ 255	200	
24	White Gain Max	0 ~ 1023	358	
25	GAIN 1X	0 ~ 127	8	Gain of horizontal high frequency region
26	GAIN 1Y	0 ~ 63	8	Gain of vertical high frequency region
27	GAIN 2X	0 ~ 63	12	Gain of horizontal middle frequency region
28	GAIN 2Y	0 ~ 63	4	Gain of vertical middle frequency region
29	GAIN 3X	0 ~ 63	1	Gain of horizontal low frequency region
30	NDON	0,1	1	Background Noise Detection ON/OFF Switch
31	CORING_ON	0 ~ 7	1	Coring On/Off

NO	ITEM	RANGE	DEFAULT	REMARK
32	SCALE_R	0 ~ 128	128	Log Mapping Gain
33	CORING_TH1	0 ~ 3	1	
34	CORING_TH2	0 ~ 255	1	
35	CORING_TH3	0 ~ 15	1	
36	M_CCT_FAC	0 ~ 255	80	
37	MATR_CBR	0 ~ 2047	0	YCBCR2RGB Color Matrix Conversion Coefficient Value
38	MATR_CRR	0 ~ 2047	770	YCBCR2RGB Color Matrix Conversion Coefficient Value
39	MATR_CBG	0 ~ 2047	2038	YCBCR2RGB Color Matrix Conversion Coefficient Value
40	MATR_CRG	0 ~ 2047	1784	YCBCR2RGB Color Matrix Conversion Coefficient Value
41	MATR_CBB	0 ~ 2047	908	YCBCR2RGB Color Matrix Conversion Coefficient Value
42	MATR_CRB	0 ~ 2047	0	YCBCR2RGB Color Matrix Conversion Coefficient Value
43	SCALE_ALPHA	0 ~ 255	140	Gain Value of CTE
44	RED_C_COEFF	0 ~ 255	128	Gain adjustment of the contrast for the Red Signal
45	GRN_C_COEFF	0 ~ 255	128	Gain adjustment of the contrast for the Green Signal
46	BLU_C_COEFF	0 ~ 255	128	Gain adjustment of the contrast for the Blue Signal
47	RED_B_COEFF	0 ~ 255	128	Gain adjustment of the brightness for the Red Signal
48	GRN_B_COEFF	0 ~ 255	128	Gain adjustment of the brightness for the Green Signal
49	BLU_B_COEFF	0 ~ 255	128	Gain adjustment of the brightness for the Blue Signal
50	Gamma On		0	Gamma On/Off
51	Dither Mode		0	1bit/2bit/bypass Mode
52	Sub_Contrast	0 ~ 150	102	Brightness adjustment for the height-light parts of the screen
53	Sub_Brightness	0 ~ 500	250	Brightness adjustment for the low-light parts of the screen

8) CCA

NO	ITEM	DEFAULT	REMARK
01	CCA	On	
02	M_Red-x	671	
03	M_Red-y	320	
04	M_Red-Y	75	
05	M_Green-x	307	
06	M_Green-y	693	
07	M_Green-Y	381	
08	M_Blue-x	145	
09	M_Blue-y	52	
10	M_Blue-Y	51	
11	M_White-x	264	
12	M_White-y	283	
13	M_White-Y	504	
14	D_Red-x	655	
15	D_Red-y	326	
16	D_Red-G	1000	
17	D_Green-x	282	
18	D_Green-y	690	
19	D_Green-G	1000	
20	D_Blue-x	147	
21	D_Blue-y	64	
22	D_Blue-G	1000	
23	D_Cyan-x	190	
24	D_Cyan-y	260	
25	D_Cyan-G	1000	
26	D_Magneta-x	277	
27	D_Magneta-y	131	
28	D_Magneta-G	1000	
29	D_Yellow-x	445	
30	D_Yellow-y	534	
31	D_Yellow-G	1000	
32	D_Cool2-Wx	263	
33	D_Cool2-Wy	267	
34	D_Cool2-Wg	1000	
35	D_Cool1-Wx	269	
36	D_Cool1-Wy	274	
37	D_Cool1-Wg	1000	
38	D_Normal-Wx	280	
39	D_Normal-Wy	288	
40	D_Normal-Wg	1000	
41	D_Warm1-Wx	293	
42	D_Warm1-Wy	302	
43	D_Warm1-Wg	1000	
44	D_Warm2-Wx	313	
45	D_Warm2-Wy	324	
46	D_Warm2-Wg	1000	
47	Desired_RGB	On	
48	DVI Move		

9) DDP1011

ITEM NAME	DEFAULT	Range	REMARK
V-Position	30	0 ~ 60	
H-Position	60	0 ~ 120	
LAMP	2	0 ~ 4	
Index delay	48/40	0 ~ 1023	
Seq Select	5/3	0 ~ 15	
V-Flip	Normal	0 ~ 1	
H-Flip	Normal	0 ~ 1	
Gamma	2	0 ~ 15	
SLR	0	0 ~ 1	
DMD-Bias	3	0 ~ 4	
Lamp Sync Delay	0/120	0 ~ 4095	
Lamp Boost	not used/20	0~255	

10) LNA PLUS

RF_DB-1

ITEM NAME	DEFAULT	Range	REMARK
BASE LEVEL	100	0 ~ 1024	
PK	2	0 ~ 7	
LPF2	1	0 ~ 3	
PKCOR	0	0 ~ 1	
H_P_F_ENABLE	00	0 ~ 10	
SCALE_NOISE_Y	30	0 ~ 255	
SCALE_NOISE_C	100	0 ~ 255	
DEP_GAIN2_X	4	0 ~ 255	
DEP_GAIN2_Y	4	0 ~ 255	
DEP_GAIN3_X	01	0 ~ 255	
DNIe_DEP_GAIN	30	0 ~ 255	

RF_DB-2

ITEM NAME	DEFAULT	Range	REMARK
BASE LEVEL	230	0 ~ 1024	
PK	1	0 ~ 7	
LPF2	1	0 ~ 3	
PKCOR	1	0 ~ 1	
H_P_F_ENABLE	0	0 ~ 10	
SCALE_NOISE_Y	2	0 ~ 255	
SCALE_NOISE_C	2	0 ~ 255	
DEP_GAIN2_X	2	0 ~ 255	
DEP_GAIN2_Y	2	0 ~ 255	
DEP_GAIN3_X	1	0 ~ 255	
DNIe_DEP_GAIN	20	0 ~ 255	

RF_DB-3

ITEM NAME	DEFAULT	Range	REMARK
BASE LEVEL	650	0 ~ 1024	
PK	0	0 ~ 7	
LPF2	1	0 ~ 3	
PKCOR	0	0 ~ 1	
H_P_F_ENABLE	0	0 ~ 10	
SCALE_NOISE_Y	0	0 ~ 255	
SCALE_NOISE_C	0	0 ~ 255	
DEP_GAIN2_X	0	0 ~ 255	
DEP_GAIN2_Y	0	0 ~ 255	
DEP_GAIN3_X	0	0 ~ 255	
DNIe_DEP_GAIN	0	0 ~ 255	

11) DDP PATTERNS

DDP PATTERNS	REMARK
White	
Red	
Green	
Blue	
Cyan	
Mazenta	
Yellow	
H Ramp	
V Ramp	
H Lines	
Diagonal Lines	
V Lines	
Grid	
Checkerboard	
V frequency	

12) ASI PATTERNS

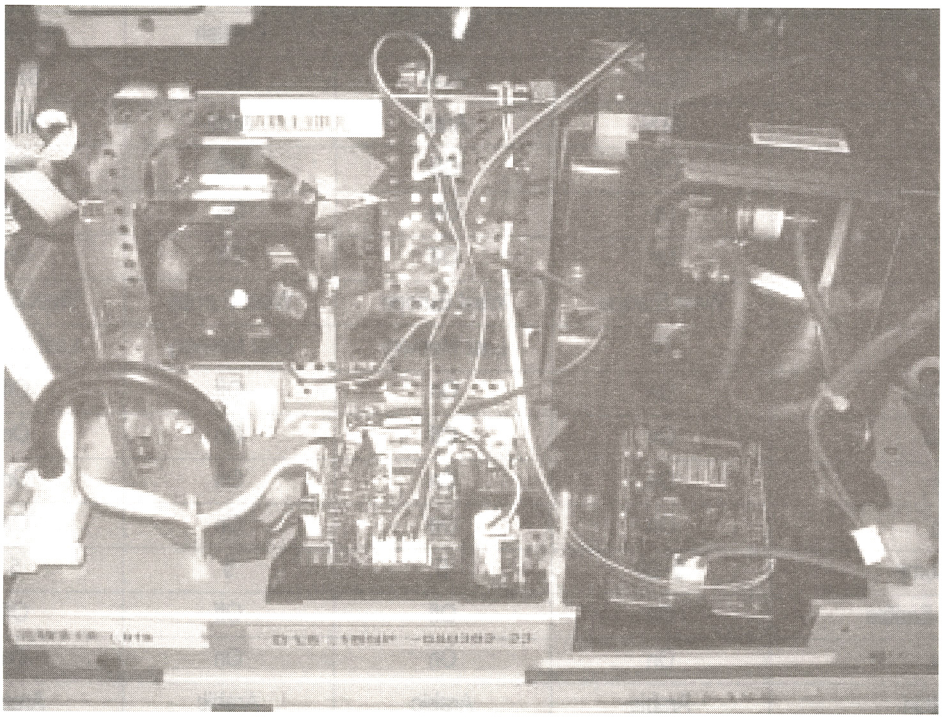
ITEM NAME	DEFAULT	Range	REMARK
CROSS BAR			
CROSS HATCH			
CHECKER			
CHARACTER			
BOX			
STEP 64			
STEP 32			
STEP 16			
STEP 8			
COLOR BAR			
FILKER_100			
FILKER_75			
FILKER_50			
FILKER_25			

13) OPTION

No.	ITEM	DEFAULT	CHINA	ASIA	EUROPE
1	Language Group	Europe	China	Asia	Europe
2	Language	English	Chinese	English	English
3	Jack Type	Scart	RCA	RCA	Scart
4	ATM/Area	ATM	Area	Area	ATM
5	CW/CS	CW	CS	CS	CW
6	LNA	On	ON	On	On
7	TOP TTX	On	Off	Off	On
8	TTX Group	West Europe	West Europe	West Europe	West Europe
9	AV Input	TV	Last Memory	Last Memory	Last Memory
10	High Deviation	On	On	Off	Off
11	Carrier Mute	On	Off	On	On
12	Auto Power	On	On	On	On
13	DNIe Demo	On	On	On	On
14	Melody Volume	0~20	5	5	5
15	DDC Write Enable	On	Off	Off	Off
16	Plug & Play	On	On	On	On
17	Arabic/Persian	Arabic	Arabic	Arabic	Arabic
18	Debugger	Not User	Not User	Not User	Not User
19	TTX Enable/Disable	Disable	Enable	Enable	Enable
20	Lamp Timer				
21	Lamp Timer Clear				
22	SCART WSS	Normal	Normal	Normal	Normal
23	LNA Plus	On	On	On	On
24	Pilot High	0~255	13	13	13
25	Pilot Low	0~255	7	7	7
26	Sound Delay SD		Delay 390	Delay 390	Delay 390
27	Sound Delay HD		Delay 18	Delay 18	Delay 18

2-1-4 CCA Adjustment Service Methods

1) Condition of the CCA Label upon Receipt of the Service Engine



2) State of the CCA Measured Value Input in SET FACTORY MODE

[For Export]

```
CCA ON/OFF
Red    - x : ???
Red    - y : ???
Red    - Y : ???
Green  - x : ???
Green  - y : ???
Green  - Y : ???
Blue   - x : ???
Blue   - y : ???
Blue   - Y : ???
White  - x : ???
White  - y : ???
White  - Y : ???
WB SPREAD
DVI MOVE
D-White         - x : 297
D-White         - y : 287
```

[For Domestic]

```
CCA ON/OFF
Red    - x : ???
Red    - y : ???
Red    - Y : ???
Green  - x : ???
Green  - y : ???
Green  - Y : ???
Blue   - x : ???
Blue   - y : ???
Blue   - Y : ???
White  - x : ???
White  - y : ???
White  - Y : ???
WB SPREAD
DVI MOVE
D-White         - x : 277
D-White         - y : 270
```

3) CCA Service Procedures

1. Select FACTORY CCA mode on the SET.
2. Input the CCA basic engine data to the SET.
3. Input the D-White -x, y values in the coordinates per destination.
4. Switch the CCA OFF to ON, then check the picture quality and adjust (as listed below) if necessary.
   ※ From the 100% White Pattern, change the D-White x value to adjust the tint of the Red color: Higher the value emphasizes the Red color, lower the value weakens the Red color. Find appropriate value for Red Color.
   ※ From the 100% White Pattern, change the D-White y value to adjust the tint of the Green color: Higher the value emphasizes the Green color, lower the value weakens the Green color. Find appro priate value for Green Color.
5. Select WB SPREAD, then press Enter to activate the WB Spread SET ensuring that you adjust until you get the OK sign. After adjusting, exit Factory Mode.
6. When the adjustment is complete, check the picture quality. If necessary change the D-White x,y values to the desired tint.

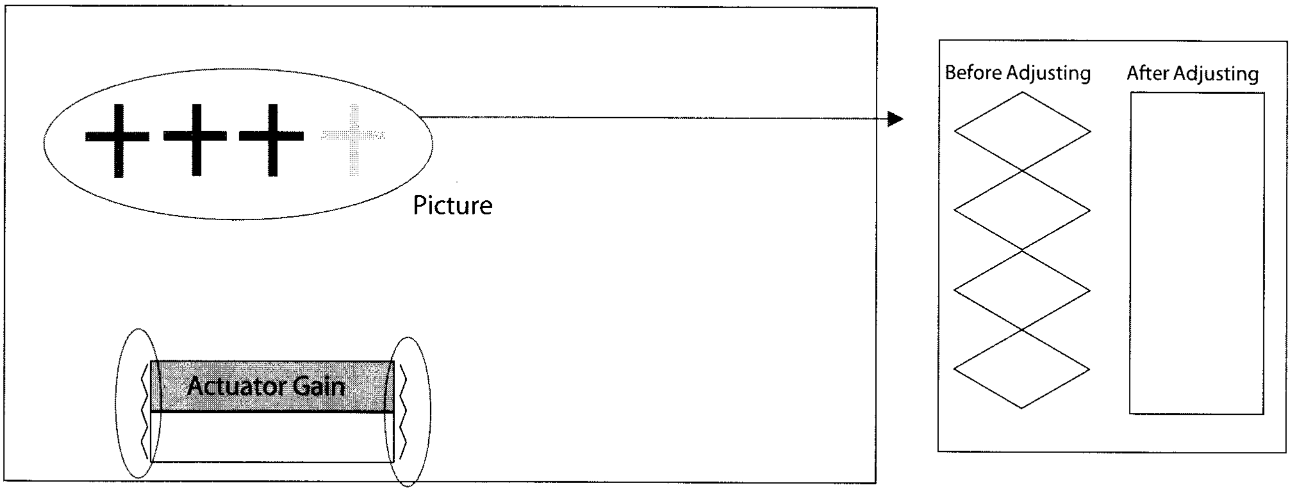
2-1-5 INDEX DELAY Adjustment

1. Turn off the power to make the SET STAND-BY mode.
2. In order to enter the Service Mode, Press “Mute” -> “1” -> “8” -> “2” -> “POWER” button on the Remote Control.
3. Select the “1. DDP1011” on the first display of ther Service Mode.
4. Press the ▲ ▼ (Up or Down) button to move to INDEX DELAY, then press ENTER to select.
5. The INDEX DELAY setup screen (with a red bar at the bottom of the screen) will be displayed.
6. Press the ◀ ▶ (Left of Right) button to check the red color at the bottom of the screen at its minimum and maximum values, then adjust to the mean value.

2-1-6 ACTUATOR GAIN Adjustment

1) Before Adjustment

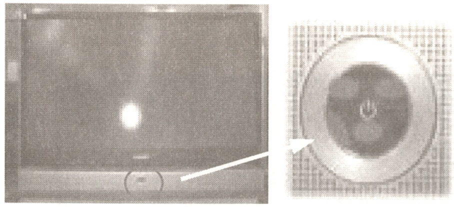
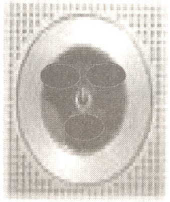
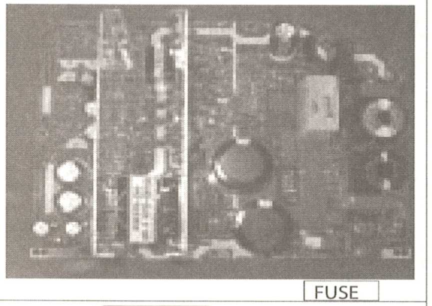
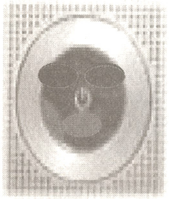
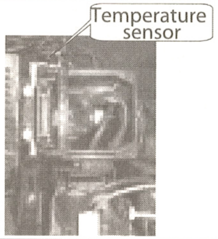
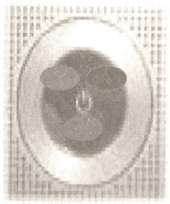
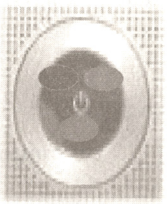
1. On the Factory Transmitter's display -> Move to Factory Mode, then select ACTUATOR GAIN for the SP Actuator.

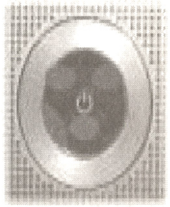
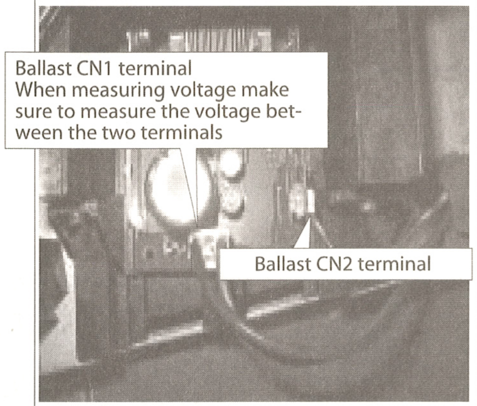
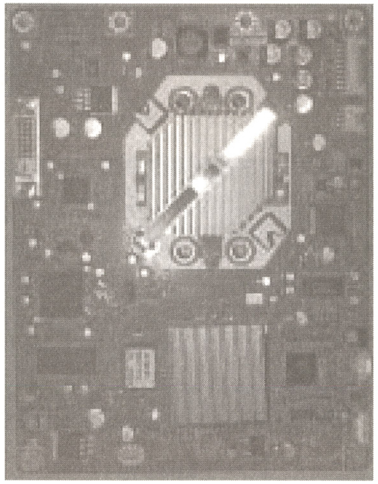


2) Making Adjustments

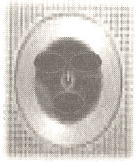
1. As shown in the picture above, change the actuator values to eliminate saw tooth shapes from the A and B areas.
   - To fine tune, increase the data value ensuring that you get the center between the starting and ending points of the disappearing saw tooth shape.
   -> Move "5" steps further from the point where A disappears.
2. To fine tune the upper and lower areas, refer to the saw tooth shape (in the picture below) and the red, green, blue and white crosshair shape (as shown above) respectively for further adjustment.

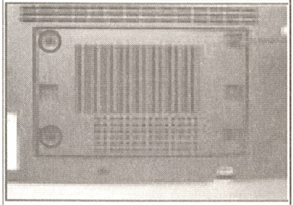
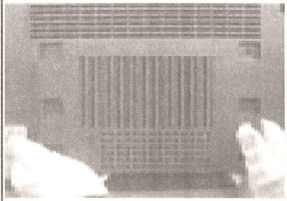
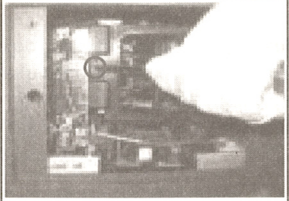
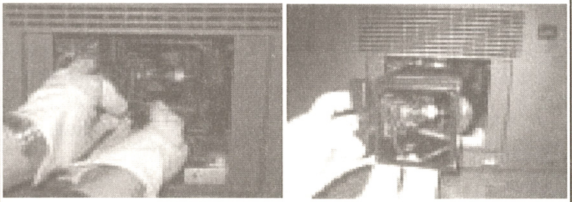
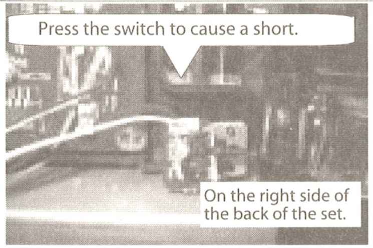
2-2 Contents Failure Repair Methods

No.	Item	Picture	Description	Remarks
1	Normal operation [LED Status]		1.When the power cord is plugged in, the LED indicator is not lit. 2.When the set is turned on via the remote control, the Lamp LED indicator at the right upper is lit. 3.When the timer setting function is used, the Timer LED indicator at the left upper is lit.	1. Flickering of the Lamp LED indicator means that the lamp is about to be turned on. 2. The ON state of the Lamp LED indicator means that the lamp has been turned on.
	Failure Type	Picture	Inspection Items	Remarks
	When the set is turned on, the Lamp LED does not flicker.		1. Check whether or not the power cord is connected. 2. Check the line filter fuse. 3. Check the connections of the ANALOG CN802 and CN803 connectors. 4. Check the connection of the DIGITAL CN128 connector and check if 5.7V power has een supplied to pin #3.	
	When the TEMP LED indicator flickers.		1. Check whether the temperature sensor connector attached to the engine has been inserted normally into CN106 on the Sub Detect/Actuator board. 2. Check whether the temperature sensor is normal when both terminals have been short-circuited (connected).	
	1.TIMER and TEMP LED blinking 2. LAMP and TEMP LED blinking	①  ② 	1. Check if the fan operates when TIMER and TEMP LED blinks. 2. Check that the cover detection switch is inserted at CN107 on the Sub Detect/Actuator board when LAMP and TEMP LED blinks. 3. When LAMP and TEMP LED blink, check that the lamp cover is properly assembled and that the switch-pressing boss(inside) is not bent.	

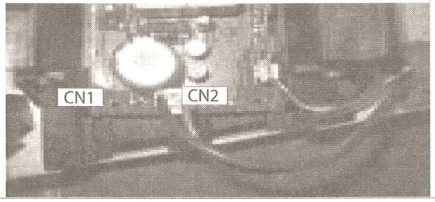
No.	Item	Picture	Description	Remarks
1	When the TIMER,LAMP and TEMP LED Indicators filcker simultaneously.	  Ballast CN1 terminal When measuring voltage make sure to measure the voltage between the two terminals Ballast CN2 terminal	1. If the 3 LED indicators flicker from the time the set is turned on, it means: 1) The CN602 connector on the DMD board is not inserted properly. 2) The DVI cable that connects the DIGITAL board to the DMD board is not connected properly. 3) If the lamp does not turn on even after turning it on three times, by powering off/on 15 second intervals: ! The B+ 260V power is not supplied to the ballast (The cable is not connected properly between the power and the ballast.) @ The cable connected to the CN109 terminal on the DMD board and the CN2 terminal on the ballast is short-circuited or not connected. # The lamp does not turn on because 5V has not been supplied to blue pin #1 on the CN2 terminal of the ballast. $ 5V is supplied to the CN2 terminal on the ballast but the lamp does not turn on because the ballast has a failure. (If the lamp is replaced and 5V is supplied normally to the CN2 terminal, suspect a ballast failure if the lamp still does not turn on.) % The ballast is normal but the lamp doest not turn on. (When 5V is supplied to CN2 and 385V to CN1, but the lamp does not turn on, try replacing the lamp. If it turns on, that means it was a lamp failure.) 4) The color wheel engaged to the engine does not operate, or the connector which indicates the operation of the color wheel is not connected properly, and therefore does not allow the lamp to turn on. The cause can be determined when the set still does not turn on after attempting to turn it on three times. 5) Another digital board or the DMD board has a failure. Conclusively, if the three LED indicators flicker, first check the above five items, then check the various connector connections, and then suspect a failure of the lamp or the ballast.	

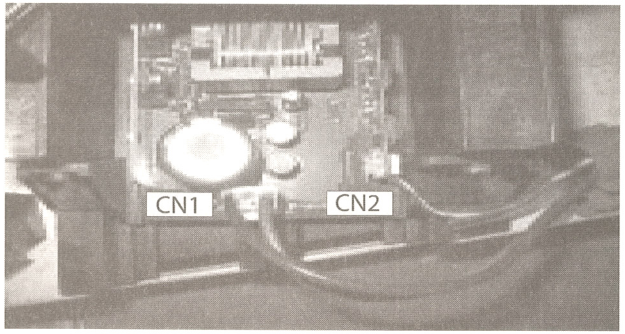
■ Failure if the LED indicator is normal but the screen is not displayed.

No.	Item	Picture	Description	Remarks
2	First	Check whether the External LED indicator of the set is normal.	1. When the power cord is plugged in, the LED indactor is not lit 2. What the set is turned on via the remote control the LAMP LED indicator at the left upper is lit	
	Second	Check whether the ANALOG board LED indicators inside the set are lit.	All of the three LED indicators should be turned on. * You can observe those LED indicators at the back of the set. All three LED indicators should be turned on.	
	Third	Check whether the set lamp is turned on.	When the lamp is turned off, replace it. * When you turn on the set again after replacing the lamp, - It should turn on within 30 seconds. (For 50 and 61 inch TVs) *If more than one minute passes before it turns on, or if it does not turn on, replace both the ballast within the engine and the lamp.	

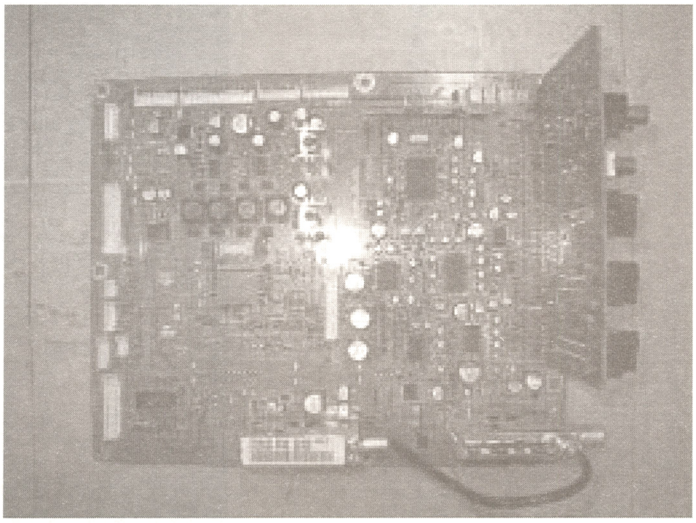
<table>
<tr><td rowspan="6">2</td><td rowspan="2">Fourth
[Lamp replacement]</td><td>Unplug TV, then use a screwdriver to remove the screw.</td><td>Remove the Lamp cover.</td><td>Remove the screws securing the Lamp by hand</td><td>Separate the Lamp from the engine by holding the handle and pulling it out</td><td rowspan="2">To reinstall the Lamp, follow these steps in reverse order.</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">Fifth
[Ballast operation check]</td><td colspan="2">Open the back cover of the set and short the protection switch.</td><td>Check whether the power and the lamp enable signal have been supplied to the ballast.</td><td colspan="2">Repair plan</td></tr>
<tr><td colspan="2">

Press the switch to cause a short.
On the right side of the back of the set.

</td><td>1. Check whether 5V is supplied to the blue terminal of CN2
2. Check whether DC 380V is supplied to both end terminals of CN1
 </td><td colspan="2">1) If 5V is applied to the CN2 terminal of the ballast, but the lamp does not turn on, replace the ballast.
2) When 5V is not supplied, replace first the DMD board attached to the engine.
If the lamp still does not work, replace the engine.
* For repair methods of the DMD board, refer to separate instructions.</td></tr>
<tr><td rowspan="2">Sixth
[The lamp is normal, but a blank screen failure occurs.]</td><td colspan="2">Check the signal supply procedure.
[Check whether the signals are supplied from the analog board to the digital board]</td><td>Method for inspecting whether signals are being supplied from the digital board to the DMD board</td><td colspan="2">DMD board inspection method</td></tr>
<tr><td colspan="2">1) Check in which mode the screen does not display.
2) If the RF, VIDEO, DVD, or DTV mode screen does not display, check the Analog CN257 terminals, Digital CN127 connector connections, and their signaling.
3) If the DVI or PC mode screen does not display, replace and inspect the digital board.
4) If the screen does not display in any mode, check whether the signals are being output from the digital board.</td><td>Check the output of the IC117 terminal.
If the signal output state is normal, suspect the DMD board.
* Refer to the Digital Board Description Diagram.</td><td colspan="2">1) Check whether +26V and -26V is being supplied to the DMD board.
-> If the voltage is abnormal, replace the tantal condenser (C108, C109: When failure occurs intermittently.)
If the problem continues after replacement, then replace the power drive IC (IC107).
2) If the DMD voltage is normal, replace the panel, or reassemble the panel.
(Try to fix the four silver screws again.)
* Refer to the DMD Board Description Diagram.</td></tr>
</table>

2	Seventh [DMD state inspection method]	Remove the heat sink attached to the DMD board and follow the directions given below. 1) Replace the heat sink. Fix the DMD by tightening the screws again. 2) Check signaling for each part.	Horizontal raster failure occurs. [Check whether the output of the R NETWORK RA101~ RA104 terminals of the DMD board are normal.]	Vertical line failure occurs. * Check whether it occurs within the regular wide range. (Less than 26mm for 50-inch TV)	
		* Refer to the DMD Panel PIN Terminals Characteristics Diagram.	* Refer to the DMD Board Description Diagram	1) If it appears at regular intervals of less than 26mm, check the DMD fixing state. → Loosen the four silver screws and then re-assemble them. 2) If the vertical lines do not occur at regular intervals, or the intervals are more than 26mm, or irregular, replace IC115 (DDP1010).	
3	Noise failure	Check the noise state of the color wheel. 1) If the noise of color wheel is loud, replace the engine or the color wheel. 2) When the color wheel is replaced, make sure to adjust the delay value of 1.DDP1010 to factory settings. (Adjust to the position where the color red is strongest.)	Fan noise 1) Check the revolving state of the fan to inspect whether the fan wire is caught on the wings, then check the bearing noise.	Ballast noise 1) Check whether there is noise from the ballast, if noise is too loud, replace the ballast.	
		The color wheel is attached as shown in the following figure. Loosen the screws which fix the outer parts and then replace the color wheel.	50-inch: Three fans 61-inch: Three fans		

2-3 ASSY PCB ANALOG Service Manual



ASSY PCB ANALOG Terminal Spec Characteristics

ASSY PCB ANALOG General Characteristics
1. Receives general TV signals and supplies VIDEO (COMPOSITE) signals to the DIGITAL BOARD.
2. Controls switching for and amplifies (IC133,IC134,IC137,IC140,IC124) all of the RF and sound signals, and outputs them to the speaker.
3. The power is distributed from the POWER board through the ANALOG board to the DIGITAL board. Therefore, wrong insertion of the lead connector may cause a power failure. Make sure to insert the lead connector with the protrusions on the connector header placed in the right direction.
4. If a blank screen failure occurs in the RF (general TV) mode and the ALL mode, first, check whether signals are supplied to the pins of the CN257 terminal on the Analog board, and then check whether normal signals are supplied to the Digital board and the DMD board.
5. Mode switching failure between the TV/VIDEO1 and the PC mode may not be identified when connecting the jack if any of the IC129 PINs are short-circuited or IC itself has a failure.

Analog board pin assignment

CN257

Supplies AV Signals to PCB DIGITAL

Pin Name	I/O	PIN No.		I/O	Pin Name
Comp1-Y	←	1	2		GND
Comp1-Pb	←	3	4		GND
Comp1-Pr	←	5	6		GND
Comp2-Y	←	7	8		GND
Comp2-Pr	←	9	10		GND
Comp2-Pb	←	11	12		GND
N.C.	←	13	14		GND
N.C.	←	15	16		GND
N.C.	←	17	18		GND
Main-Y/V	←	19	20		GND
Main-C	←	21	22		GND
Sub-Y/V	←	23	24		GND
Sub-C	←	25	26		GND
Caption-CVBS	←	27	28		GND
IR	←	29	30		GND

CN258

Connects Control Signals between PCB Analog and PCB Digital

Pin Name	I/O	PIN No.		I/O	Pin Name
LED1	↔	1	2	↔	SDA-Micom
LED2	→	3	4	←	SCL-Micom
LED3		5	6		GND
Key1	←	7	8	↔	SDA-Analog
Key2		9	10	←	SCL-Analog
Reset-D	←	11	12		GND
I2C-STOP	←	13	14	←	SDA-Digital
Power-SW	←	15	16		SCL-Digital
N.C.		17	18	←	GND
N.C.	←	19	20	←	I2S-CLK-HDMI
GND	←	21	22		I2S-EN-HDMI
MCLK_AUDIO	→	23	24		I2S-DATA-HDMI
S-MUTE	→	25	26	←	GND
PC-L	→	27	28	←	DVI-L
PC-R		29	30		DVI-R
GND	←	31	32	←	GND

CN243 / CN244

Receives Power Signals from PCB POWER

Pin Name	PIN No.		Pin Name
Power-Mute	1	2	S14.5VB
S-GND	3	4	S14.5VB
S-GND	5	6	5.7VB
GND	7	8	12VB
GND	9	10	12VB
GND	11	12	70VB
GND	13	-	

Pin Name	PIN No.		Pin Name
5VA	1	2	GND
33VB	3	4	GND
Power-SW	5	6	N.C.
N.C.	7	-	

CN208

Supplies Power Signals to PCB DMD

Pin Name	PIN No.		Pin Name
5VB	1	2	5VB
GND	3	4	GND
12VB	5	6	12VB
GND	7	8	GND
GND	9	-	-

CN251

Pin Name	SUB Detector/Actuator	PIN No.		SUB Detector/Actuator	Pin Name
GND	Ground	1	2	Fan-VCC	12VB
GND	Ground	3	4	SDA-Memory	SDA-M
SCL-M	SCL-Memory	5	6	Ground	GND
5VA	5VA	7	8	Ground	GND
70VB	70VB	9	10	Ground	GND

CN223

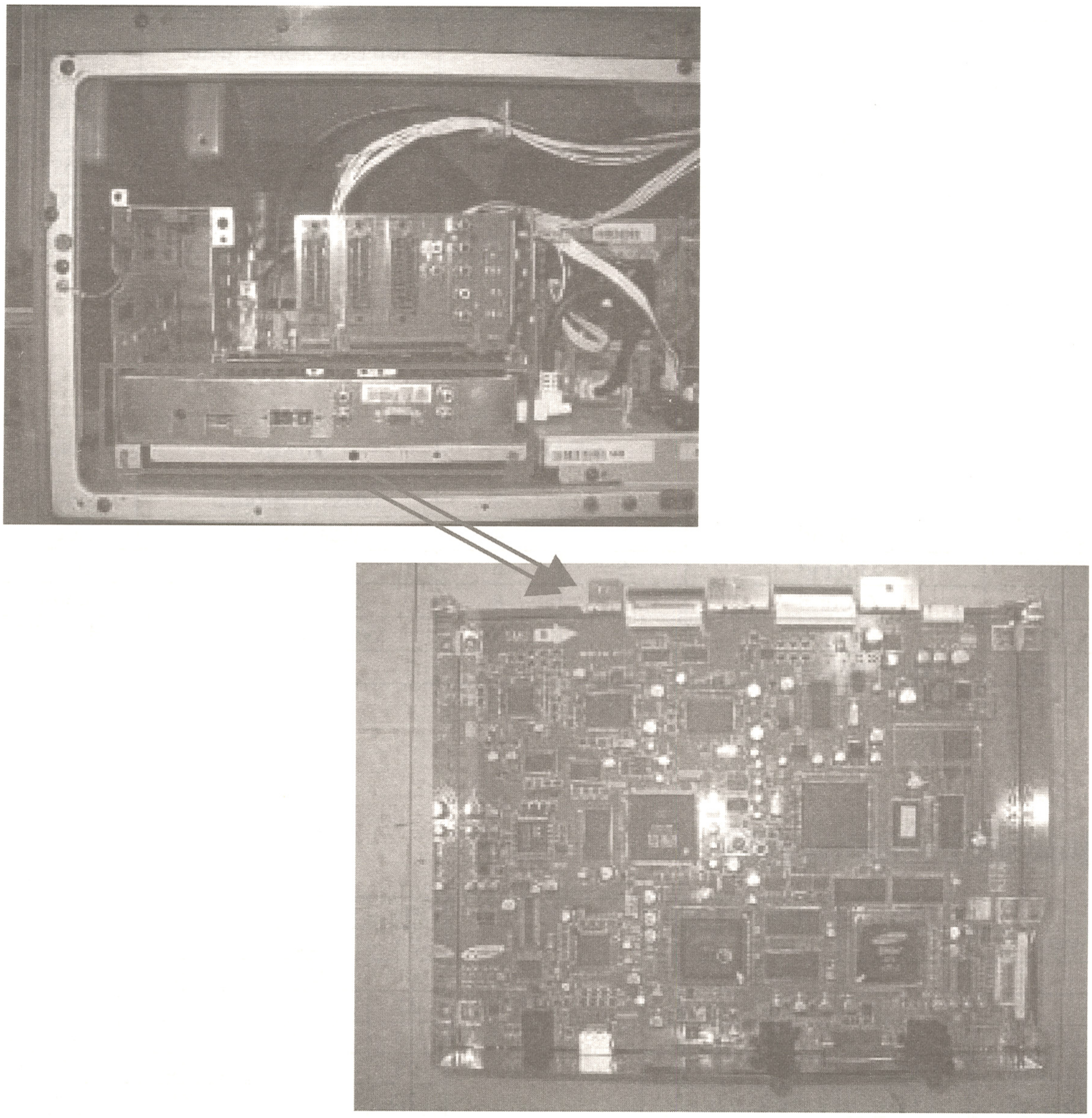
Receives AV Signals from PCB SIDE-AV

Pin Name	Side AV	PIN No.		Side AV	Pin Name
Side-Y	SVHS Y (Luma)	1	2	SVHS C (Chroma)	Side-C
GND	Ground	3	4	Video (CVBS)	Side-V
GND	Ground	5	6	Side Sound L	Side-L
GND	Ground	7	8	Side Sound R	Side-R
GND	Ground	9	10	SVHS Jack Detect	Side-SDET
Side-VDET	Video Jack Detect	11	-		

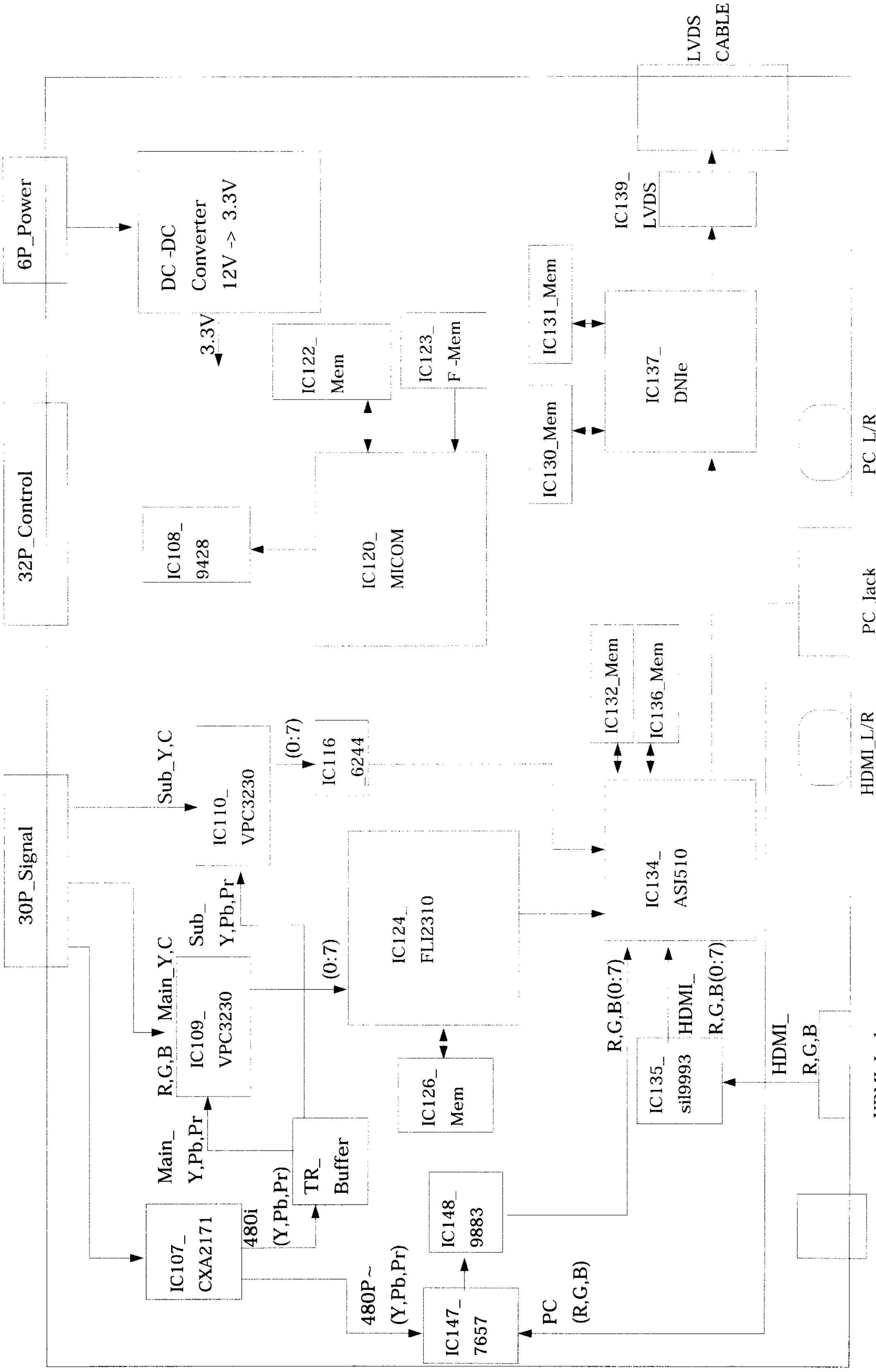
I/O Expander Pin Assignment

	DES	NAME	PIN		PIN	NAME	DES	
GND		VSS	1	S3P9428/32-SOP	32	VDD		
		XIN	2		31	P0.2	I/O	S1-DET
		XOUT	3		30	P0.3	I/O	S2-DET
GND		TEST	4		29	P0.4	I/O,ADC	Side-SDET
Comp2-DET	I/O	P0.1	5		28	P0.5	I/O,ADC	V1-DET
Comp1-DET	I/O	P0.0	6		27	P0.6	I/O,ADC	V2-DET
RESET-D		RESET	7		26	P0.7	I/O,ADC	Side-VDET
RF-SEL	O	P3.0	8		25	P3.1	O	SOUND-RESET
LNA-SW	O	P3.2	9		24	P3.3	O	DEFAULT
MTNR-AFT	I/O,ADC	P2.0	10		23	P1.0	I/O	DELAY1
STNR-AFT	I/O,ADC	P2.1	11		22	P1.1	I/O	DELAY2
N.C	I/O,ADC	P2.2	12		21	P1.2	I/O	GAIN0
N.C	I/O,ADC	P2.3	13		20	P1.3	I/O	GAIN1
RF-AGC	I/O,ADC	P2.4	14		19	P2.7	SCL	SCL-A
GND	ADDRESS	P2.5	15		18	P2.6	SDA	SDA-A
GND		AVSS	16		17	AVREF		

2-4 ASSY PCB DIGITAL Service Manual



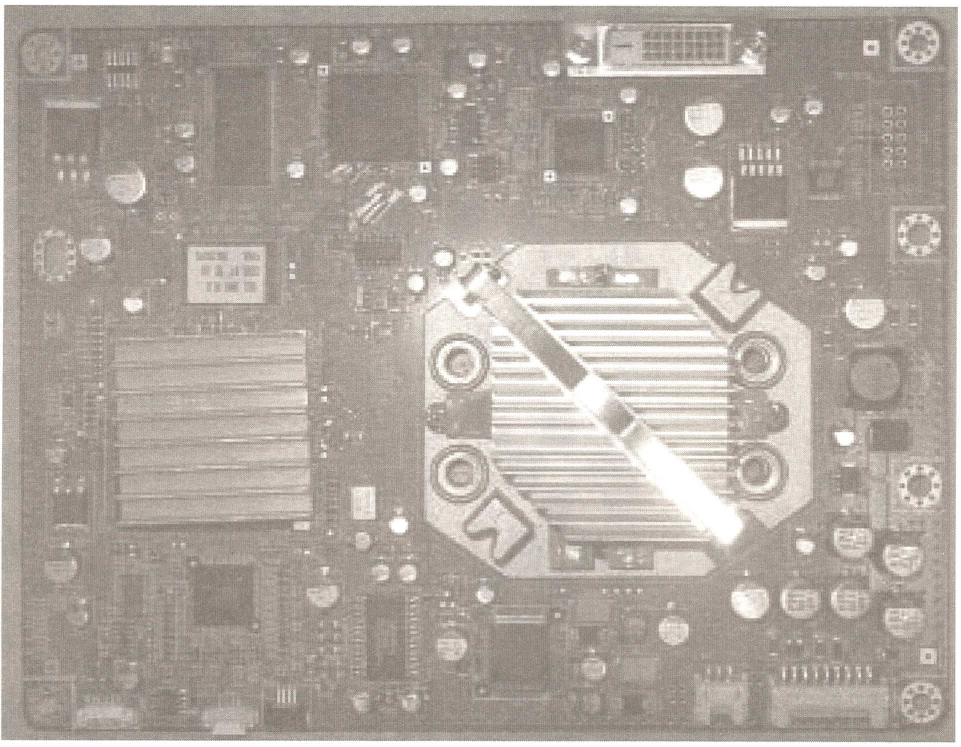
2-4-1 Digital Board Characteristics


LVDS CABLE
6P_Power
DC -DC Converter 12V -> 3.3V
3.3V
IC139_ LVDS
IC131_Mem
IC122_ Mem
IC123_ F -Mem
IC137_ DNIe
IC130_Mem
32P_Control
IC108_ 9428
IC120_ MICOM
PC_L/R
PC_Jack
IC132_Mem
IC136_Mem
HDMI_L/R
Sub_Y,C
IC110_ VPC3230
(0:7)
IC116 _6244
30P_Signal
IC124_ FLI2310
IC134_ ASI510
Main_Y,C
Sub_ Y,Pb,Pr
(0:7)
R,G,B(0:7)
HDMI_ R,G,B(0:7)
R,G,B
IC109_ VPC3230
IC126_ Mem
IC135_ sil9993
HDMI_ R,G,B
HDMI_Jack
Main_ Y,Pb,Pr
TR_ Buffer
480i (Y,Pb,Pr)
IC148_ 9883
Phone_Jack
IC107_ CXA2171
480P~ (Y,Pb,Pr)
IC147_ 7657
PC (R,G,B)

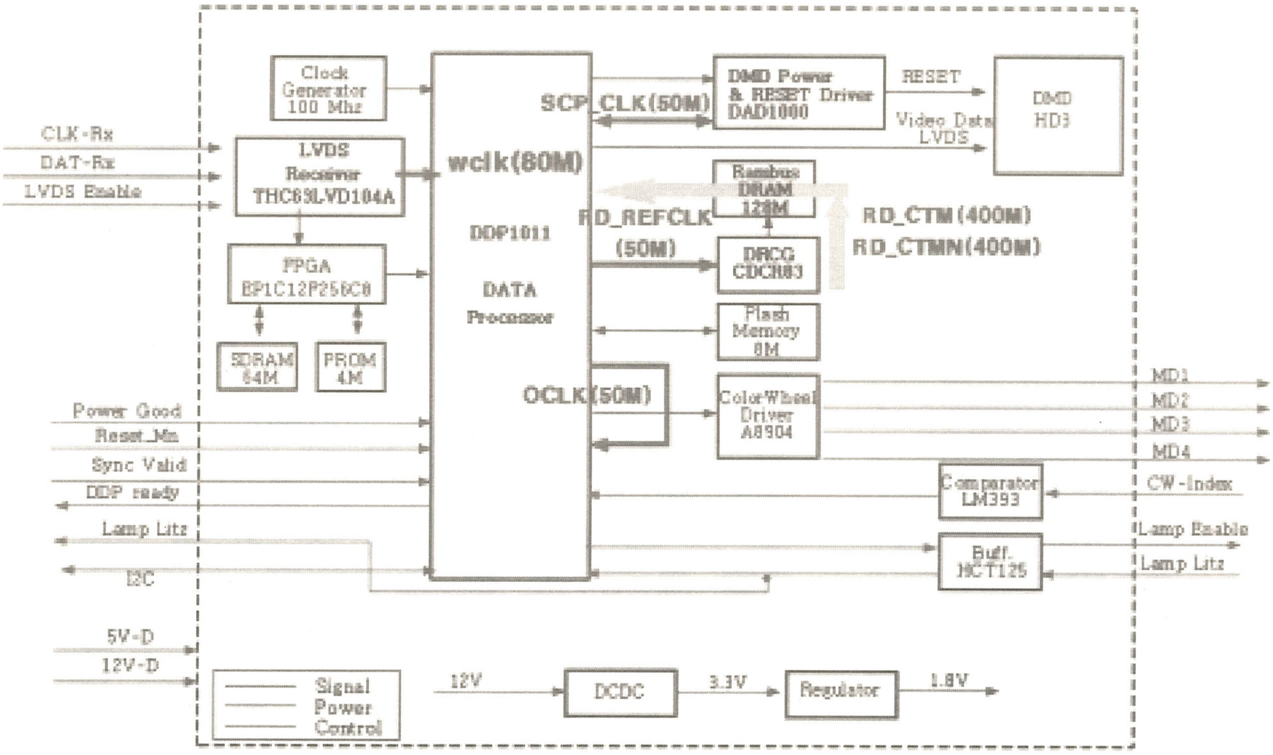
Digital board connector pin

REFERENCE	TERMINAL	SPEC	REFERENCE	TERMINAL	SPEC
CN127	1	COMP1-Y	CN126	1	LED1
	2	GND		2	SDA-MICOM
	3	COMP1-PB		3	LED2
	4	GND		4	SCL-MICOM
	5	COMP1-PR		5	LED3
	6	GND		6	GND
	7	COMP2-Y		7	KEY1
	8	GND		8	SDA-ANALOG
	9	COMP2-PB		9	KEY2
	10	GND		10	SCL-ANALOG
	11	COMP2-PR		11	RESET-D
	12	GND		12	GND
	13	N.C		13	I2C-STOP
	14	GND		14	SDA-DIGITAL
	15	N.C		15	POWER-SW
	16	GND		16	SCL-DIGITAL
	17	N.C		17	SCART1-FB
	18	GND		18	GND
	19	MAIN-Y		19	SCART3-FB
	20	GND		20	I2S-CLK-HDMI
	21	NAIN-C		21	GND
	22	GND		22	I2S-EN-HDMI
	23	SUB-Y		23	MCLK_AUDIO
	24	GND		24	I2S-DATA-HDMI
	25	SUB-C		25	S-MUTE
	26	GND		26	GND
	27	CAPTION-CVBS		27	PC-L
	28	GND		28	DVI-L
	29	IR		29	PC-R
	30	GND		30	DVI-R
CN128	1	12V		31	GND
	2	GND		32	GND
	3	5.7V			
	4	GND			
	5	5V			
	6	GND			

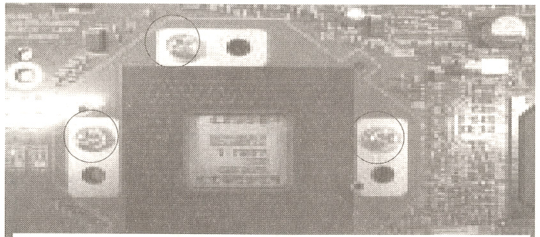
2-5 ASSY PCB DMD Service Manual



DMD BOARD BLACK DIAGRAM


Clock Generator 100 Mhz
SCP_CLK(50M)
DMD Power & RESET Driver DAD1000
RESET
DMD HD3
Video Data LVDS
CLK-Rx
DAT-Rx
LVDS Enable
LVDS Receiver THC63LVD104A
wclk(80M)
Rambus DRAM 128M
RD_REFCLK (50M)
RD_CTM(400M)
RD_CTMN(400M)
DDP1011 DATA Processor
DRCG CDCR83
FPGA EP1C12F256C8
Flash Memory 8M
SDRAM 64M
PROM 4M
OCLK(50M)
Color Wheel Driver A8904
MD1
MD2
MD3
MD4
Power Good
Reset_Mn
Sync Valid
DDP ready
Comparator LM393
CW-Index
Lamp Litz
Lamp Enable
Buff. HCT125
Lamp Litz
I2C
5V-D
12V-D
Signal
Power
Control
12V
DCDC
3.3V
Regulator
1.8V

DMD Panel Pin Terminal Characteristics Diagram



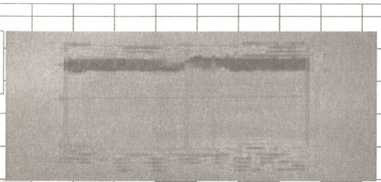
Remove the heat sink attached to the DMD board and tighten the screws in four places and then inspect the characteristics of each pin terminal.

PIN NAME	DESCRIPTION	PIN NAME	DESCRIPTION
V	VOLTAGE :3.3V	T	TEST POINT
V2	VCC2 :8V	ME	MIRROR BIAS EXTRA
DA	A CHANNEL DATA BUS[When measured, there should be a waveform.]	C	CLOCK
DB	B CHANNEL DATA BUS[When measured, there should be a waveform.]	P#	A,B CHANNEL POSITIVE
NO.	MBRST# (MIRROR BIAS REST) 26V	N#	A,B CHANNEL POSITIVE
G	The part from the present position to the GND (The black part is also a GND.)		

	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
A				■		V		V		DA	N6	DA	N4	V		DA	N2	DA	P0	V		G		G		■		V		V		G		G		■		V		N	A
B			V						■		DA	P6	DA	P4	■		DA	P2	DA	N0	■		■		■		■		■		G				C		■		■		B
C		■		■		■		G		■		DA	P7	DA	P5	■		DA	N3	DA	N1	■		■		■		■		G				■		■		■		V	C
D	DA	N8	DA	P8	C		C		■		DA	N7	DA	N5	■		DA	P3	DA	P1	■		■		■		G				■						■		V		D
E		DA	N10	DA	P10	DA	P9	DA	N9																									■		■		■		V	E
F	V		■		■		■																										■		■		V		V2		F
G		DA	N12	DA	P12	DA	P11	DA	N11																									■		■		■		V2	G
H	V2		V2		DA	P13	DA	N13																									■		■		■		V2		H
J		V		■		■		■																										■		■		V		V2	J
K	DA	P14	DA	N14	DA	P15	DA	N15																									■		■				V		K
L		DB	P14	DB	N14	DB	P15	DB	N15																									■				ME		V	L
M	V		■		■		■																										■		14		11		V2		M
N		V2		V2		DB	P13	DB	N13																									10		5		1		V2	N
P	DB	N10	DB	P10	DB	P11	DB	N11																									■		4		V		V2		P
R		V		■		■		■																										■		■		V		V2	R
T	DB	N10	DB	P10	DB	P9	DB	N9																									■		■		■		V		T
U		DB	N8	DB	P8					■		DB	N7	DB	N5	■		DB	P3	DB	P1	■		6		3		T0		G						0		■		V	U
V	■		■		■		EV		■		DB	P7	DB	P5	■		DB	N3	DB	N1	■		13		9		■				G		■				■		V		V
W		V		C		C		■		DB	P6	DB	N4	■		DB	P2	DB	N0	■		12		8		■		7		T2		G		C		■		V			W
Y			■		V		V		DB	N6	DB	P4	V		DB	N2	DB	P0	V						■		V		2		T1		G		■		V				Y
	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

The vertical lines, which may occur due to improper connections between the panel and the PCB, occur with intervals of 50 inches (26mm).
If vertical lines occur with intervals of more than 26mms, it indicates a failure of the DDP1010 IC soldering or IC itself.
If they occur with intervals of less than 26mm, it means that more than two pins have bad connections.

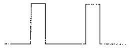
DA,DB output wave
[Screen:WHITE]



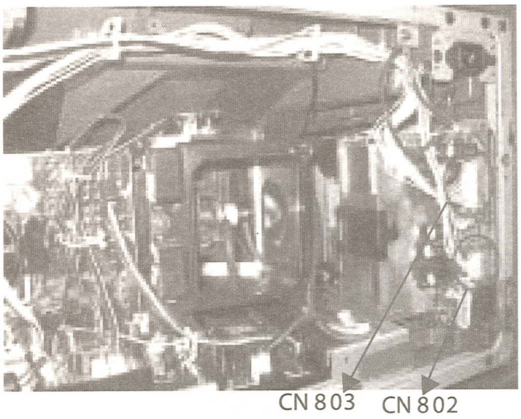
Description of Terminal Characteristics

PIN NAME	DESCRIPTION
SCTRL_BN/P	B channel LVDS serial control
DCLK_BN/P	B-channel LVDS CLOCK
SCPDI	SERIAL CONTROL DATA INPUT
SCPDO	SERIAL CONTROL DATA OUTPUT
SCPENB	SERIAL CONTROL ENABLE
SCPCK	SERIAL CONTROL CLOCK
DMD RESETB	DMD LOGIC RESET
MBRST(14:0)	MIRROR BIAS RESET
MBRST_EXTRA	UNUSED MIRROR BIAS RESET
SCR_CLR	TEST CLEAR PINS (NORMAL GND)
READOUTA(1:0)	A-CHANNEL SERIAL DATA OUT DURING SRAM READ TEST OPERATION
READOUTB(1:0)	B-CHANNEL SERIAL DATA OUT DURING SRAM READ TEST OPERATION
TP(2:0)	MANUFACTORING TEST POINT(NO CONNECTED DURING NORMAL CPERATION)
RSV_A(4:0)/ RSV_B(4:0)	RESERVED PINS (NORMAL:GND)
EVCC	REFERENCE VOLTAGE DURING SRAM READ TEST OPERATION(NORMAL GND)
VCC2	MIRROR ELECTRODE VOLTAGE(7.3V)
VCC	LOGIC SUPPLY
VSS	LOGIC GROUND

Engine Failure Inspection Flow Chart for the DMD Board

No.	Description	Key Point	Remark
1	1) When the power cord is plugged in, 2) DC 380V is automatically supplied to the ballast.	1) Check whether the DC380V power is supplied to the ballast.	* For domestic model, it is needed to check whether the master power switch is turned on. * The US model has no master power.
2	1) When the power key is pressed via the remote control, the micom of the digital board outputs high (5V) PWR signals. 2) The power board operates normally. 5V and 12V are supplied to the DMD CN105 terminal.	1) Check whether 5V and 12V are supplied to the CN105 terminal.	* 12V must be supplied to operate the motor. (The voltage of the motor driving power is 12V.)
3	1) The MTR Reset signal is supplied to the R161 terminal of the motor IC101 from the micom on the digital board and then the motor starts to drive. 2) If the color wheel rotates for a certain time and then stops, check whether the color wheel sensor is normal. (Check the waveform on the No.2 terminal below CN102. )	1) After the set is powered on, check whether 5V is detected on pin No.49 of IC101. * After a while, the sound generated by the rotating color wheel is heard.	* If 5V is not detected, the motor will not operate.
4	1) Check whether the signal (SCI: START CONTROL INPUT) that turns on lamp #2 of CN109 on the DMD board is high (5V).	1) Check whether CN109 #2 signal is 5V.	* When SCI is high (5V), the lamp litz of CN109 is low (0V). * CN109 #2 terminal voltage changes to pulse waveform 14 seconds after (for 50 inch TV) the time that the voltage is 5V. * When about 4 seconds have passed after changing to pulse waveform, the screens are displayed on the set.
5	1) Method for checking whether the DDP1010 IC RESET is normal.	1) If the voltage between R254 and R255 is 3V, it is normal.	
6	1) Check whether the signal and the voltage are output normally to the data line of DMD panel.	1) A waveform should be output on the data line. * Refer to the remarks.	

2-6 ASSY PCB POWER Service Manual

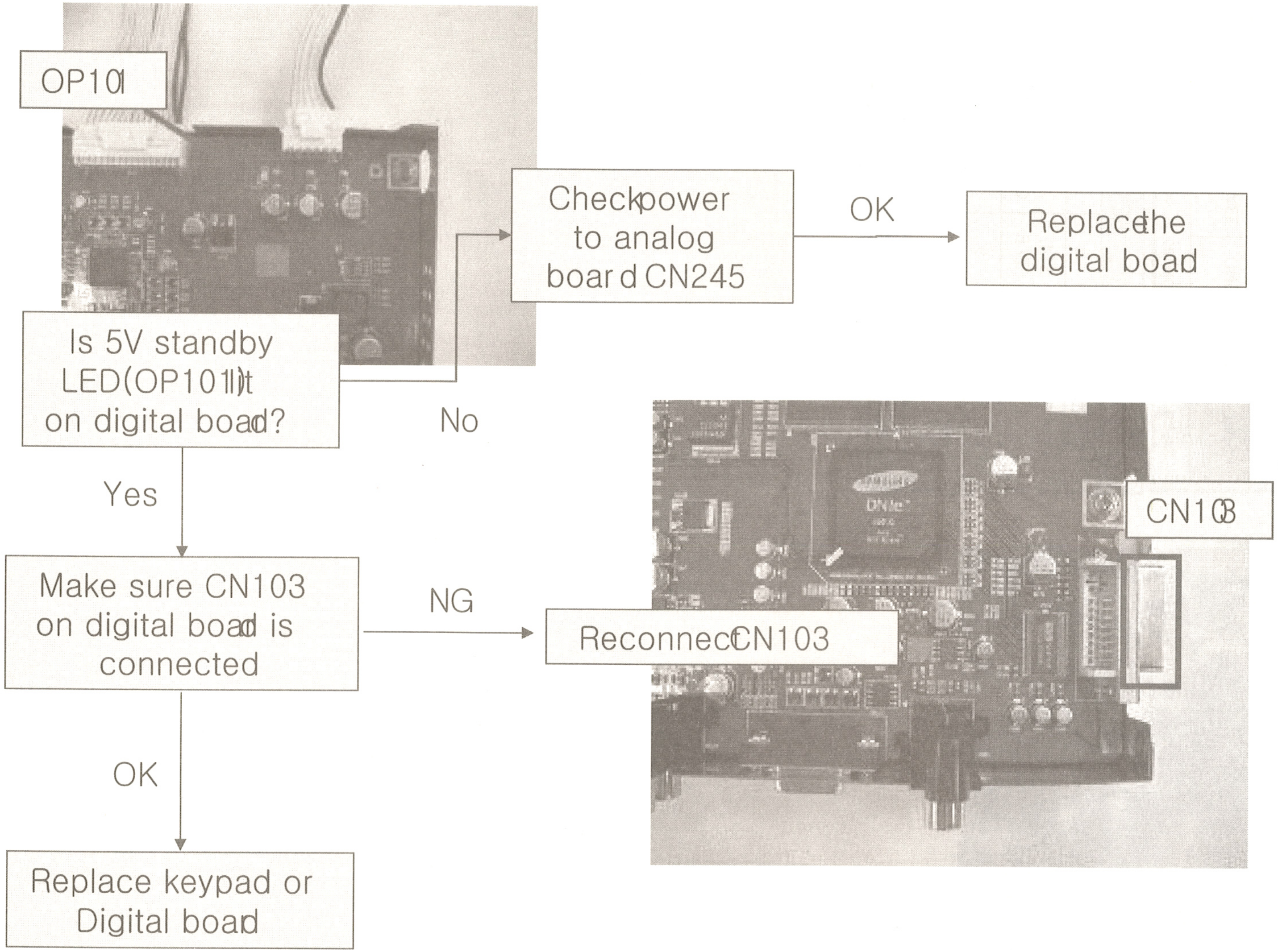


CN803							
Pin #	1	2	3	4	5	6	7
Spec	5V A	GND	33V B	GND	Power -S / W	N.C.	N.C
Used	Supplies DC voltage to the PCB ANALOG						

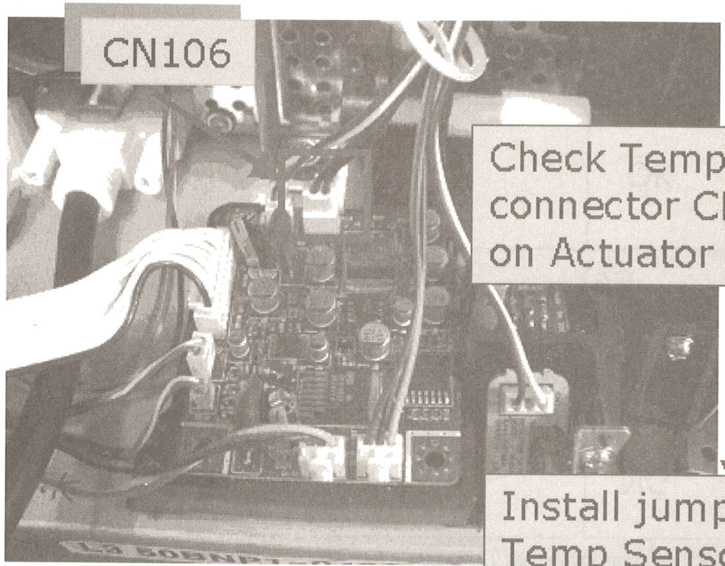
CN802							
Pin #	1	2	3	4	5	6	7
Spec	Power -Mute	S14. 5V B	S-GND	S14. 5V B	S-GND	5.7 VB	GND
Pin #	8	9	10	11	12	13	
Spec	12V B	GND	12V B	GND	70V B	GND	
Used	Supplies DC voltage to the PCB ANALOG						

2-7 Troubleshooting

1. Dead SET


OP101
Is 5V standby LED(OP101) lit on digital board?
No
Check power to analog board CN245
OK
Replace the digital board
Yes
Make sure CN103 on digital board is connected
NG
Reconnect CN103
CN103
OK
Replace keypad or Digital board

2. Blinking Temp LED



Check Temp Sensor connector CN106 on Actuator Board

NG → Re-insert connector

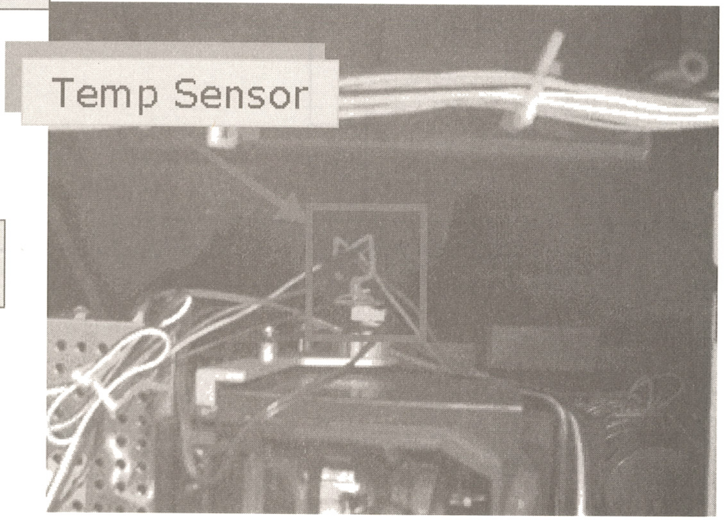
OK ↓

Install jumper across Temp Sensor Terminals. Does it work?

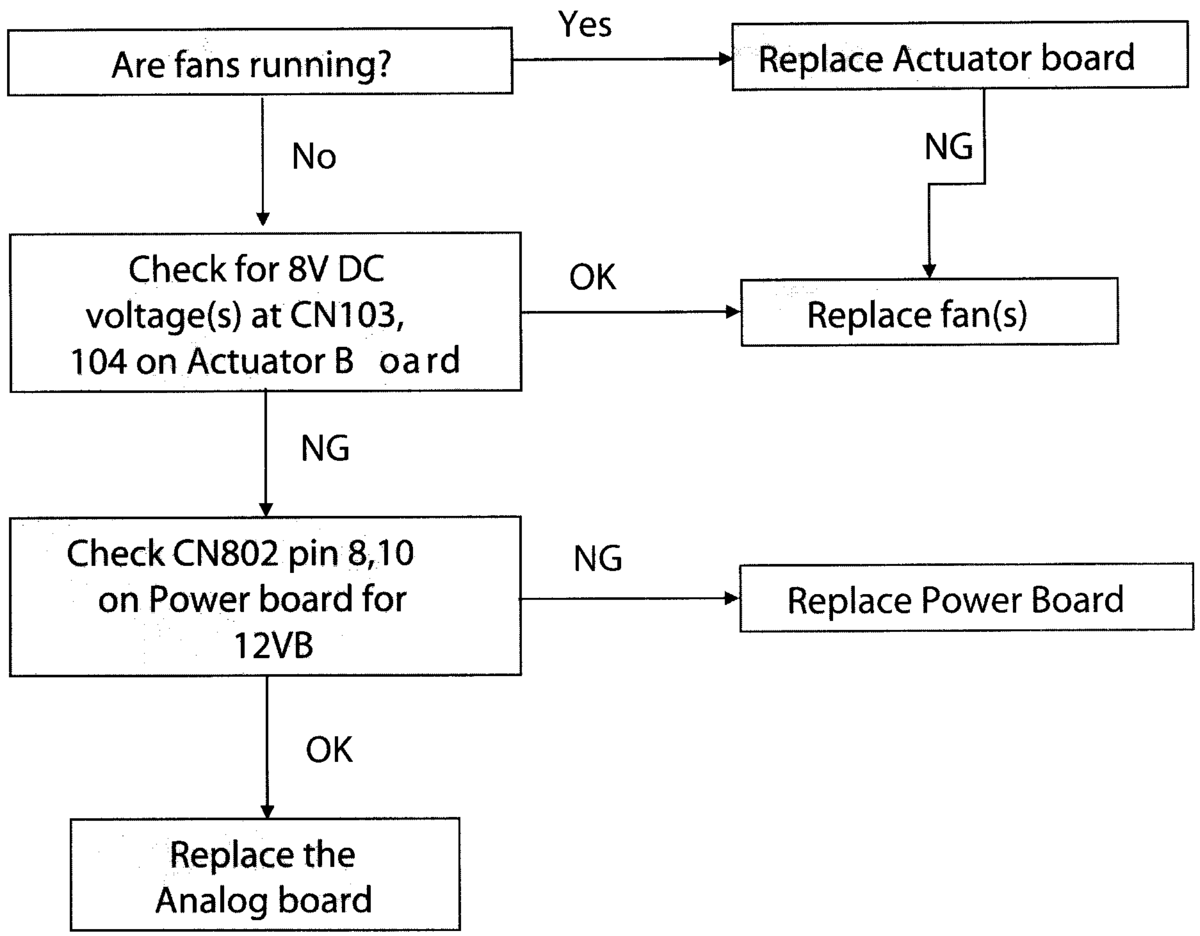
No → Replace the Actuator board

Yes ↓

Replace Temp Sensor.

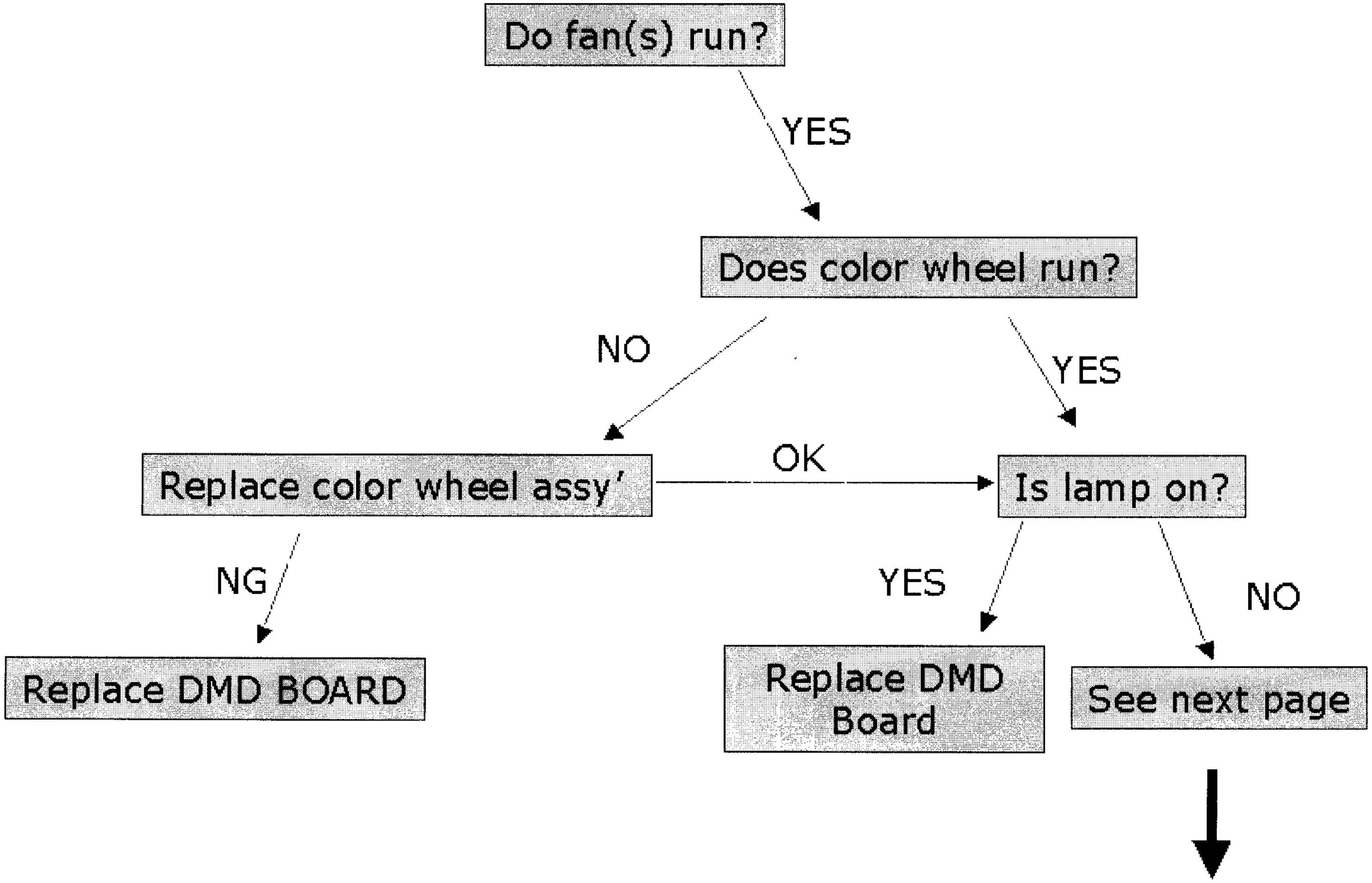


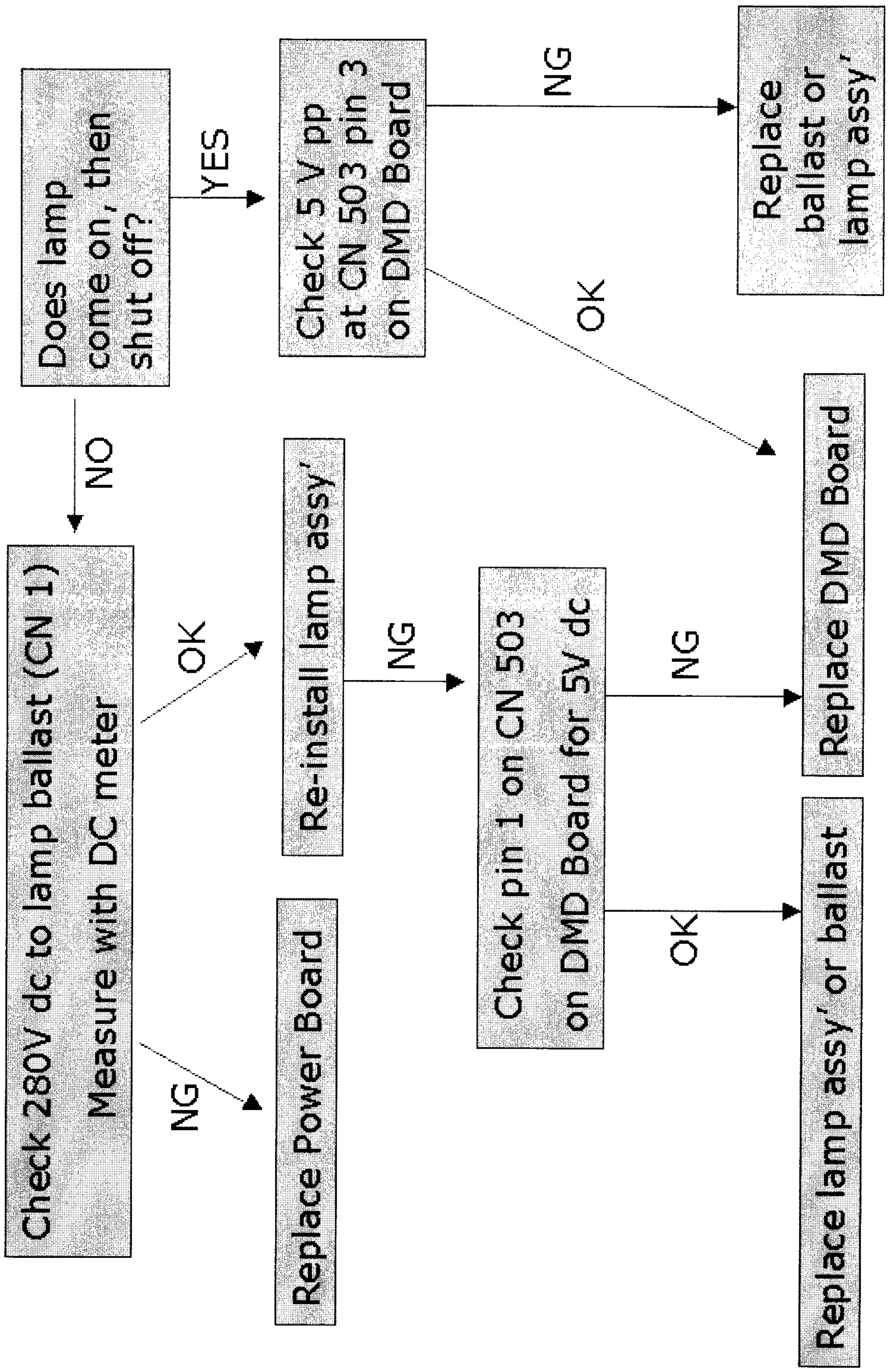
3. Blinking Temp and Timer LED


Are fans running?
Yes
Replace Actuator board
NG
No
Check for 8V DC voltage(s) at CN103, 104 on Actuator Board
OK
Replace fan(s)
NG
Check CN802 pin 8,10 on Power board for 12VB
NG
Replace Power Board
OK
Replace the Analog board

4. Blinking Lamp LED

A blinking lamp LED is the most common failure indication. It can be caused by no lamp, no color wheel, no fan(s), or other defective components.


Do fan(s) run?
YES
Does color wheel run?
NO
YES
Replace color wheel assy'
OK
Is lamp on?
NG
YES
NO
Replace DMD BOARD
Replace DMD Board
See next page


Does lamp come on, then shut off?
YES
Check 5 V pp at CN 503 pin 3 on DMD Board
NG
Replace ballast or lamp assy'
OK
Replace DMD Board
NO
Check 280V dc to lamp ballast (CN 1) Measure with DC meter
OK
Re-install lamp assy'
NG
Replace Power Board
NG
Check pin 1 on CN 503 on DMD Board for 5V dc
NG
Replace DMD Board
OK
Replace lamp assy' or ballast

5. Blinking Lamp, Temp, LED's

Is lamp cover installed?

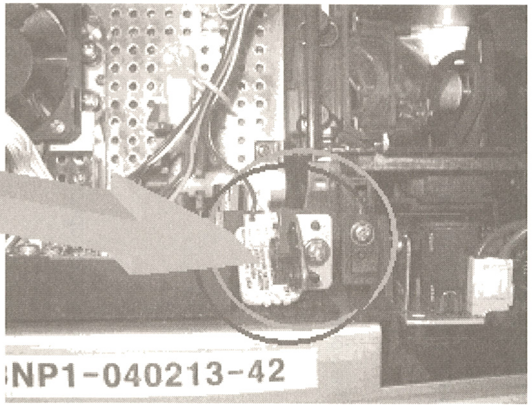
No → Install lamp cover

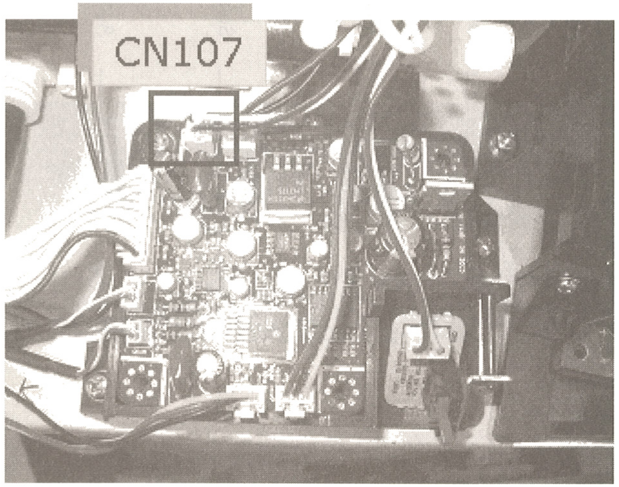
Yes → Make sure lamp cover switch is activating

OK → Short CN 107 on Actuator Board

NG → Check boss on Lamp Cover

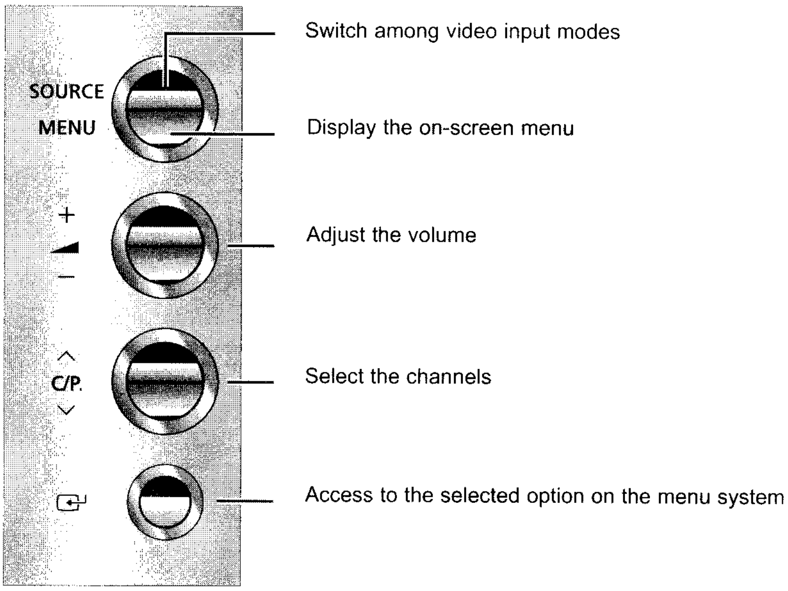
NG → Replace the digital board





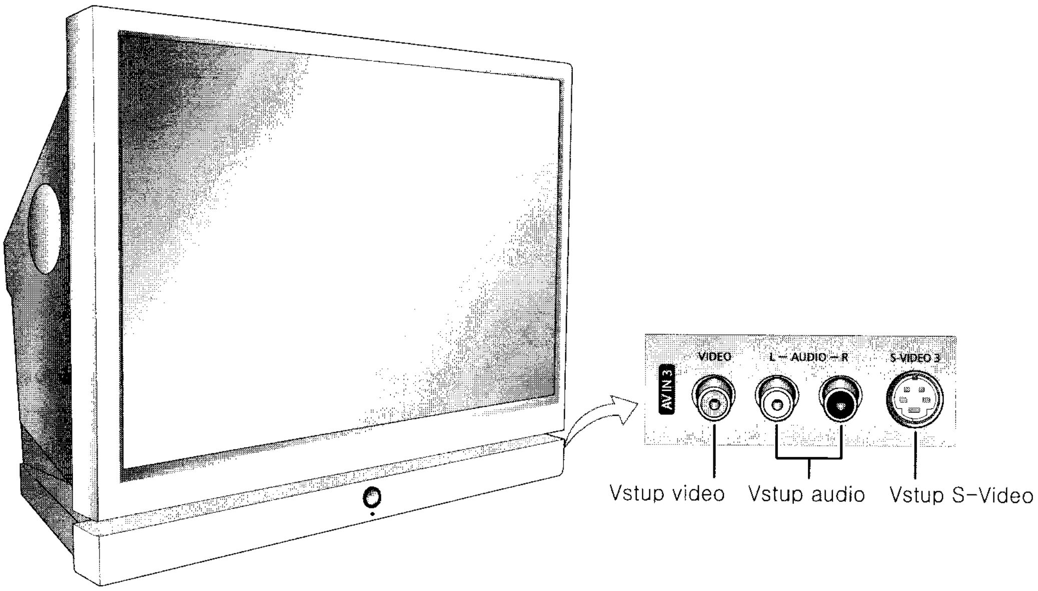
2-8 Side Panel Buttons

The buttons on the side panel control your TV's basic features, including the on-screen menu system. To use the more advanced features, you must use the remote control.


SOURCE
MENU
+
−
C/P.
Switch among video input modes
Display the on-screen menu
Adjust the volume
Select the channels
Access to the selected option on the menu system

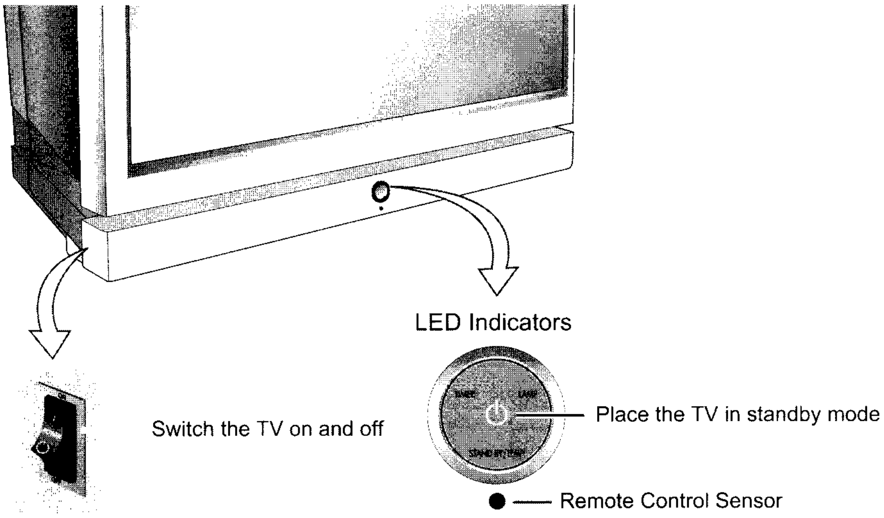
2-9 Side Panel Jacks

Use the side panel jacks to connect a component that is used only occasionally (a camcorder or video game, for example).


AV IN 3
VIDEO
L – AUDIO – R
S-VIDEO 3
Vstup video
Vstup audio
Vstup S-Video

2-10 Front Panel LED Indicators

The three lights on the front panel indicate the status of your TV.



(●:On, ◑:Blinking, ○:Off)

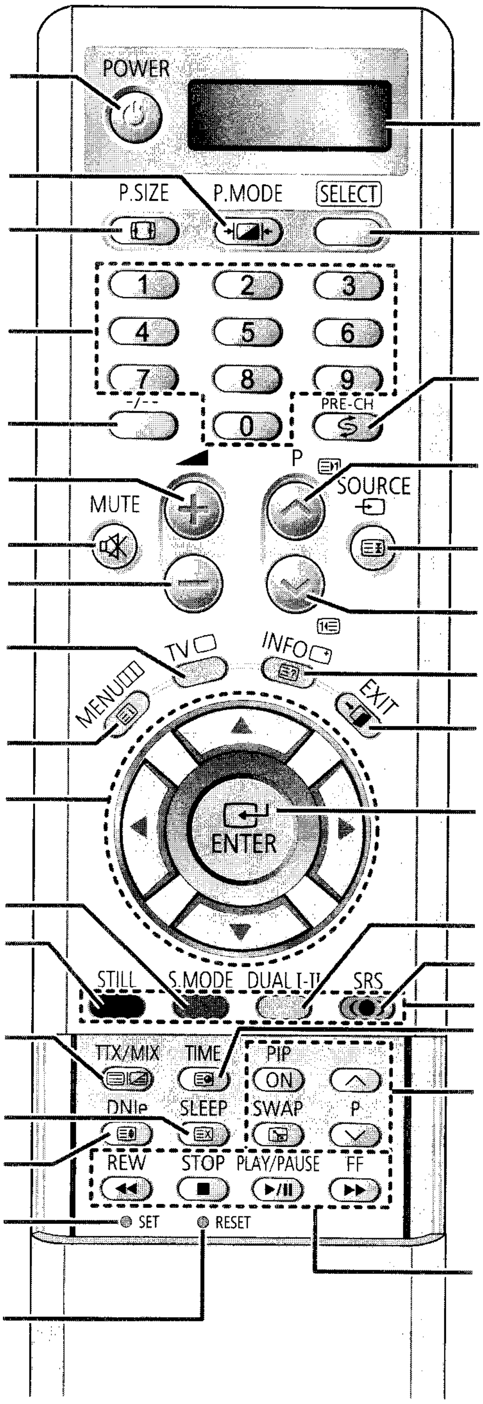
TIMER	LAMP	STAND BY/TEMP	Indication
○	○	●	Standby mode.
●	○	○	A timer pilot lights when Timer Auto On or Off is selected.
○	●	○	Normal operation.
●	●	○	Normal operation (when Timer Auto On or Off is selected).
○	◑	○	Lamp is warming up. The normal picture comes on after 25 seconds.
●	◑	○	The normal picture comes on after 25 seconds. (when Timer Auto On or Off is selected)
○	◑	◑	Air vent cover in the rear of the TV is not properly installed.
○	○	◑	Inside temperature of the TV is over normal. Clean the air vent cover in the rear of the TV. Turn the TV back on after 1 hour.
◑	◑	◑	The lamp does not work, please contact an authorized Service Center for assistance.

➢

- You can use the channel selection buttons to switch on the TV when it is in standby mode depending on the model.
- When using the on-screen menu the volume adjustment and channel selection buttons have the same function as the../† /œ/√ buttons on the remote control.
- If the remote control no longer works or your have lost it, you can use controls on the panel of the TV.

2-11 Remote Control

You can use the remote control up to about 23 feet from the TV. When using the remote control, always point it directly at the TV. You can also use your remote control to operate your Set-Top box, VCR, Cable box or DVD player.



POWER ON/OFF

PICTURE EFFECT SELECTION

PICTURE SIZE

DIRECT CHANNEL SELECTION

ONE OR TWO-DIGIT CHANNEL SELECTION

VOLUME INCREASE

TEMPORARY SOUND SWITCH-OFF

VOLUME DECREASE

TUNER/CABLE NETWORK SELECTION

MENU DISPLAY/ TELETEXT INDEX

MOVE TO THE REQUIRED MENU OPTION/ ADJUST AN OPTION VALUE RESPECTIVELY

SOUND EFFECT SELECTION

STILL THE MAIN PICTURE

➢ In the PIP mode, the main and sub pictures are stilled at the same time.

TELETEXT DISPLAY/ MIX BOTH TELETEXT INFORMATION AND THE NORMAL BROADCAST

AUTOMATIC SWITCH-OFF/ TELETEXT CANCEL

DNIe ON/DEMO/OFF/ TELETEXT SIZE SELECTION

SET THE MBR CODE OF REMOTE CONTROL FOR THE PRODUCTS EXCEPT SAMSUNG PRODUCT (OPTION)

INITIALIZE THE REMOTE CONTROL SETTINGS WHEN IT HAS SOME PROBLEMS OR DOESN'T WORK WELL

➢ Please remove both batteries before pushing the RESET button. Failure to do so may result in damage to the remote control

WHEN YOU PRESS A BUTTON, ' ' APPEARS ALONG WITH SELECTED MODE (TV, VCR, CATV, DVD OR STB) AND REMAINING BATTERIES ON LED

MAKE THE REMOTE CONTROL WORKS FOR TV, VCR, CABLE-BOX (CATV), DVD PLAYER, OR SET-TOP BOX (STB)

SWITCH REPEATEDLY BETWEEN THE LAST TWO CHANNELS DISPLAYED

NEXT CHANNEL/ TELETEXT NEXT PAGE

EXTERNAL INPUT SELECTION/ TELETEXT HOLD

PREVIOUS CHANNEL/ TELETEXT PREVIOUS PAGE

DISPLAY INFORMATION/ TELETEXT REVEAL

EXIT FROM ANY DISPLAY

CONFIRM YOUR CHOICE (STORE OR ENTER)

SOUND MODE SELECTION

SRS TruSurround XT MODE SELECTION

FASTEXT TOPIC SELECTION

CURRENT TIME DISPLAY/ TELETEXT SUBPAGE

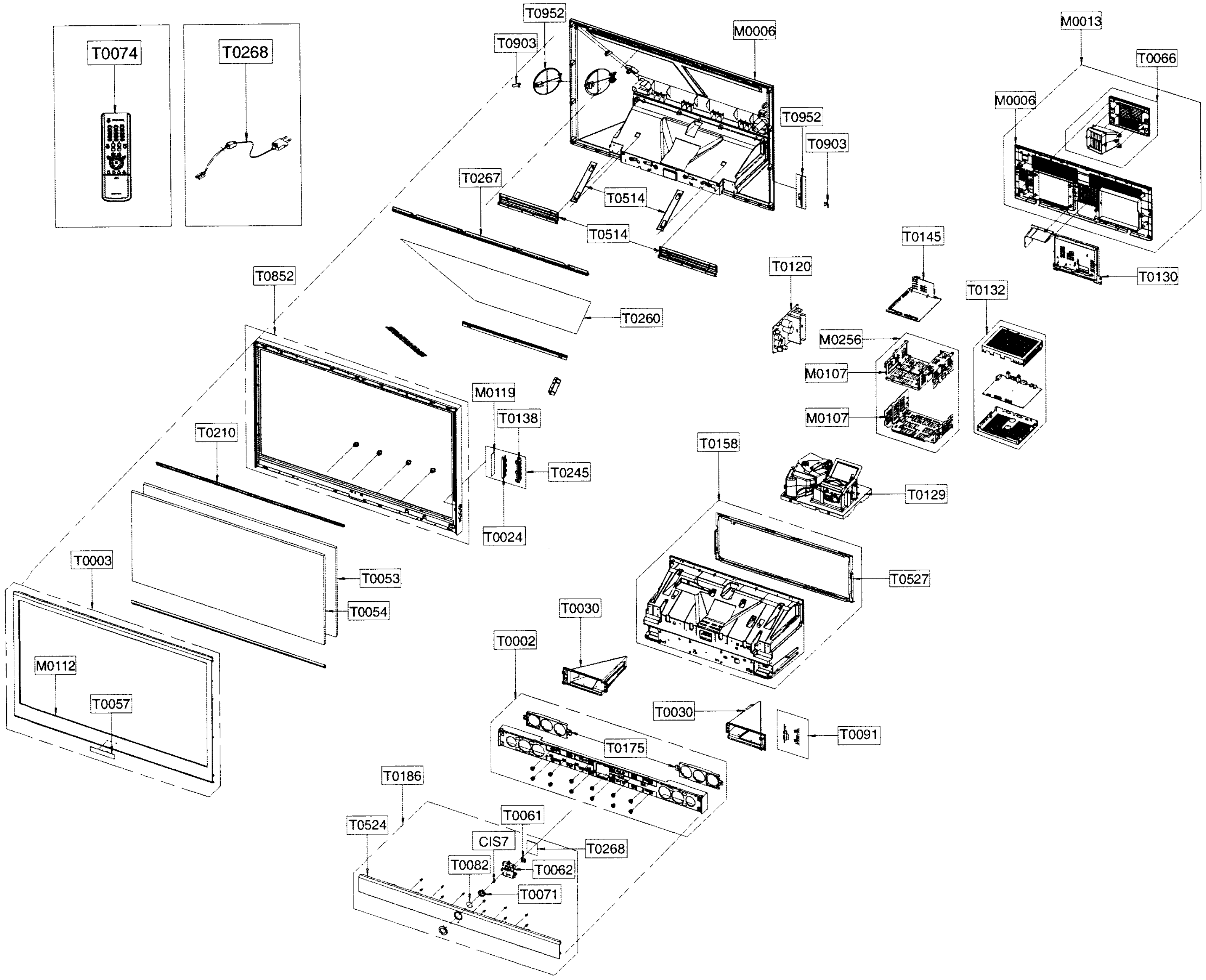
PIP FUNCTIONS:
- PIP ACTIVATING OR DEACTIVATING (PIP ON)
- SWAPPING THE MAIN AND THE SUB PICTURE (SWAP)
- SELECTING THE CHANNEL OF SUB PICTURE (P ∧/∨)

VCR/DVD FUNCTIONS:
- REWIND (REW)
- STOP
- PLAY/PAUSE
- FAST FORWARD (FF)

3. Exploded View & Parts List

3-1 SP61L6HXX/BWT

You can search for the updated part code through ITSELF web site.
URL : http://itself.sec.samsung.co.kr



Loc.No	Code No	Description;Specification	Q'ty	S.N.A
CIS7	AA61-60003J	SPRING ETC-CS;-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A
M0006	BP63-00424A	COVER-REAR;61L6,HIPS,HB,GRAY,TOP	1	
M0006	BP63-00401A	COVER-REAR BOTTOM;50L6,HIPS,V0,GRAY	1	S.N.A
M0013	BP96-00938B	ASSY COVER P-REAR BOTTOM;L6,HIPS V0,GR50	1	
M0107	BP61-00892A	BRACKET-PCB;50L3,SECC,T1.0,NTR,TOP(BUILT	1	S.N.A
M0107	BP61-00893A	BRACKET-PCB;50L3,SECC,T1.0,NTR,BOT(BUILT	1	S.N.A
M0112	BP63-00422E	COVER-FRONT;61L6,HIPS,HB,BLK,BKM1326,EUP	1	S.N.A
M0119	BP41-00124B	PCB CONTROL;HLP5063W,FR-4,2L,A,1.6T,245	1	S.N.A
M0256	BP96-00849F	ASSY BRACKET P-MAIN PCB;L3,L6,L7,SECC,T1	1	
T0002	BP96-00963B	ASSY COVER P-FRONT BOTTOM;61L6,HIPS,HB,G	1	
T0003	BP96-00996E	ASSY COVER P-FRONT;61L6,EUP(M62A),HIPS,H	1	
T0024	BP64-00384B	KNOB-FAMILY;L6,ABS,HB,GRAY,SVM-3012	1	S.N.A
T0030	BP96-00975B	ASSY COVER P-SIDE;61L6,HIPS,HB,GR503,LEF	1	
T0030	BP96-00976B	ASSY COVER P-SIDE;61L6,HIPS,HB,GR503,RIG	1	
T0053	BP67-00165A	SCREEN FRESNEL;61W,1381*790,1.5T	1	
T0054	BP67-00164A	SCREEN LENTI;61W,1381*790,T2.5	1	
T0057	BP64-00178A	BADGE-BRAND;ALL,AL,T1.5,78,13.0,,BLK,SIL	1	
T0061	BP64-00385A	WINDOW-REMOCON;50L3,PC,VIOLET	1	S.N.A
T0062	BP61-00530A	HOLDER-POWER;50L3,HIPS HB,GRAY	1	S.N.A
T0066	BP96-00535D	ASSY COVER P-DUCT;50L3,HIPS HB,GRY	1	S.N.A
T0071	BP64-00382A	INDICATOR-LED;50L3,ABS CLEAR (LG)	1	S.N.A
T0074	BN59-00378C	REMOCON;ATLANTIS,TM77,55,EX	1	
T0082	BP64-00309E	WINDOW LED;50L3,ACRYL,T2.0,HALF-MIRROR,E	1	S.N.A
T0091	BP94-02059P	ASSY PCB MISC-A/V SIDE;SP61L6,M62A,H/C	1	
T0120	BP94-02141T	ASSY PCB POWER;HURRICANE,M62A,PAL AREA,I	1	
T0129	BP96-00822N	ASSY ENGINE P-DLP PWL3;61L3(AIR),PHILIPS	1	
T0130	BP96-01005A	ASSY COVER P-TERMINAL BOARD;L6(M62A),EUP	1	S.N.A
T0132	BP94-01848C	ASSY PCB MISC-DIGITAL;L6/EUROPE,M62A,H/C	1	
T0138	BP64-00383B	KNOB-HOLDER;L6,ABS,HB,GRAY,SVM3012	1	S.N.A
T0145	BP94-02182A	ASSY PCB MISC-ANALOG;SP46L3HXX/XEC,M62A,	1	
T0158	BP96-00937C	ASSY COVER P-MAIN;L6 ALL,HIPS, V0,GR503	1	
T0175	AA96-02816A	ASSY SPEAKER P;8ohm,L6(DLP),50,20W,TW+WF	2	S.N.A
T0186	BP96-00966D	ASSY COVER P-GRILLE;61L6,HIPS,HB,GR503,S	1	S.N.A
T0210	BP61-00984A	BRACKET-SCREEN TOP;56/61L6,AL6063 EXTR,T	1	S.N.A
T0245	BP94-02140E	ASSY PCB MISC-KEY CONTROL;HLP5663/6163W,	1	
T0260	BP67-00098A	MIRROR;FRONT MIRROR 61",GLASS,34.85MM,13	1	
T0267	BP61-00937A	BRACKET-MIRROR TOP;61L6,AL6063 EXTR	1	S.N.A
T0268	BP94-02140G	ASSY PCB MISC-RMC LED;HLP5063W,L62B,ATLA	1	
T0268	3903-000145	CBF-POWER CORD;DT,EU,FP3/YES,U(IEC C13-R	1	
T0514	BP61-00915A	BRACKET-SUPPORT;61L6,SECC-1,T1.2,NTR,BAC	2	S.N.A
T0514	BP61-00918A	BRACKET-SUPPORT;61L6,SECC-1,T1.6,NTR	2	S.N.A
T0524	BP63-00426A	COVER-GRILLE;61L6,HIPS,HB,GRAY	1	S.N.A
T0527	BP61-01045A	BRACKET-COVER;L6,SECC-1,T1.2,NTR,BOTTOM	1	S.N.A
T0852	BP96-00969D	ASSY COVER P-MIDDLE;61L6,HIPS,HB,GR503,S	1	S.N.A
T0903	BP61-00528A	HOLDER-DUST;50L3,HIPS HB,GRAY	2	S.N.A
T0952	BP63-00294B	COVER DUST-ASSY;L6,HIPS,HB,GRAY	2	S.N.A

3-2 SP50L6HXX/BWT

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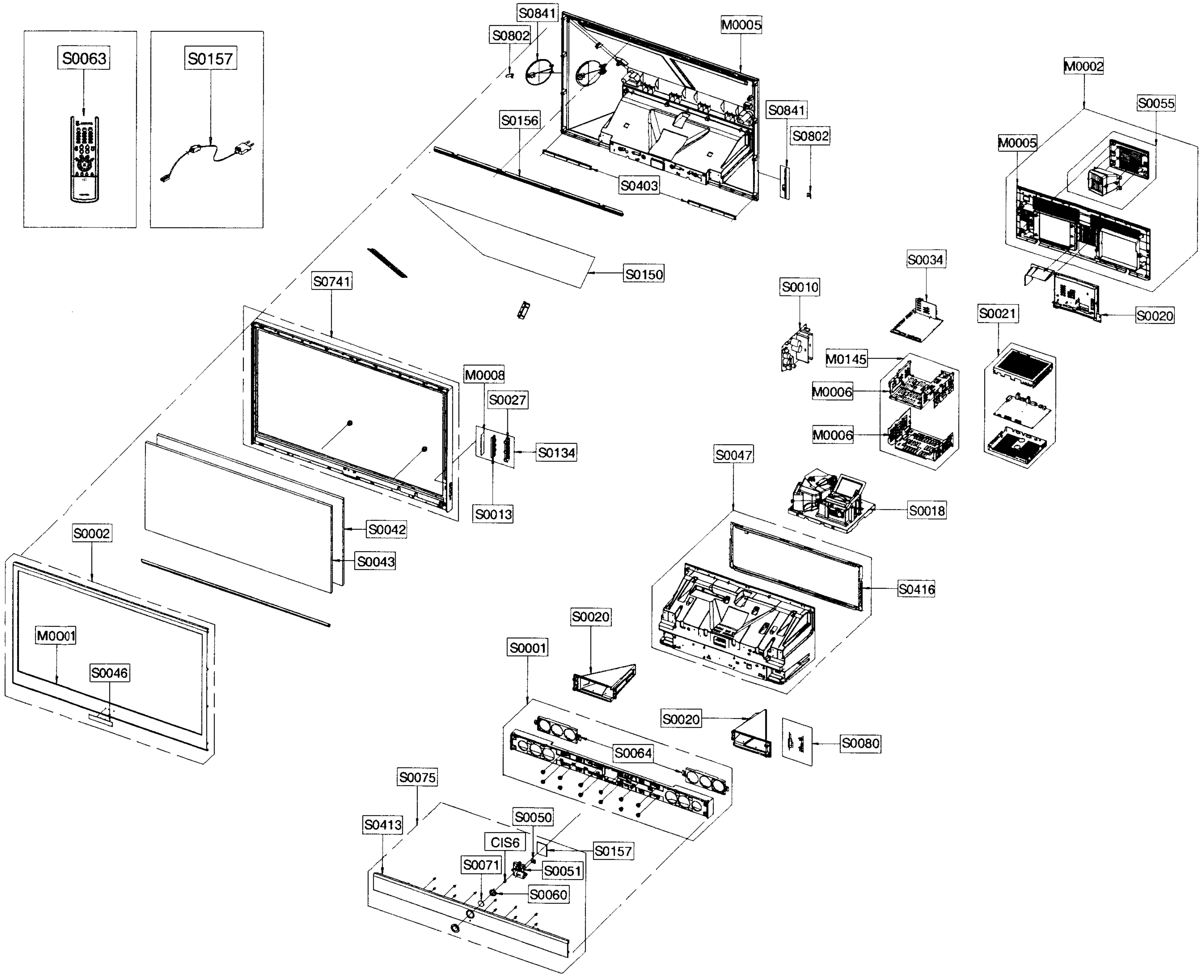

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CIS7	AA61-60003J	SPRING ETC-CS;-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A
M0006	BP63-00410A	COVER-REAR;50L6,HIPS,HB,GR503,TOP	1	
M0006	BP63-00401A	COVER-REAR BOTTOM;50L6,HIPS,V0,GRAY	1	S.N.A
M0013	BP96-00938B	ASSY COVER P-REAR BOTTOM;L6,HIPS V0,GR50	1	
M0107	BP61-00892A	BRACKET-PCB;50L3,SECC,T1.0,NTR,TOP(BUILT	1	S.N.A
M0107	BP61-00893A	BRACKET-PCB;50L3,SECC,T1.0,NTR,BOT(BUILT	1	S.N.A
M0112	BP63-00408D	COVER-FRONT;50L6,HIPS,HB,BLK,BKM1326R1,E	1	S.N.A
M0119	BP41-00124B	PCB CONTROL;HLP5063W,FR-4,2L,A,1.6T,245	1	S.N.A
M0256	BP96-00849F	ASSY BRACKET P-MAIN PCB;L3,L6,L7,SECC,T1	1	
T0002	BP96-00934B	ASSY COVER P-FRONT BOTTOM;50L6,HIPS HB,G	1	
T0003	BP96-00994D	ASSY COVER P-FRONT;50L6,HIPS,HB,BLK,BKM1	1	
T0024	BP64-00384B	KNOB-FAMILY;L6,ABS,HB,GRAY,SVM-3012	1	S.N.A
T0030	BP96-00942B	ASSY COVER P-SIDE;50L6,HIPS,HB,GR503,LEF	1	
T0030	BP96-00943B	ASSY COVER P-SIDE;50L6,HIPS,HB,GR503,RIG	1	
T0053	BP67-00140A	SCREEN FRESNEL;50W,1126*646,1.5T	1	
T0054	BP67-00137A	SCREEN LENTI;50W,1126*646,2.4T	1	
T0057	BP64-00177A	BADGE-BRAND;ALL,AL,T1.5,70,11.3,BLK,SILI	1	S.N.A
T0061	BP64-00385A	WINDOW-REMOCON;50L3,PC,VIOLET	1	S.N.A
T0062	BP61-00530A	HOLDER-POWER;50L3,HIPS HB,GRAY	1	S.N.A
T0066	BP96-00535D	ASSY COVER P-DUCT;50L3,HIPS HB,GRY	1	S.N.A
T0071	BP64-00382A	INDICATOR-LED;50L3,ABS CLEAR (LG)	1	S.N.A
T0074	BN59-00378C	REMOCON;ATLANTIS,TM77,55,EX	1	
T0082	BP64-00309E	WINDOW LED;50L3,ACRYL,T2.0,HALF-MIRROR,E	1	S.N.A
T0091	BP94-02059L	ASSY PCB MISC-A/V SIDE;SP46L6HRX/XEC,M62	1	
T0120	BP94-02141T	ASSY PCB POWER;HURRICANE,M62A,PAL AREA,I	1	
T0129	BP96-00822L	ASSY ENGINE P-DLP PWL3;50L3(AIR),PHILIPS	1	
T0130	BP96-01005A	ASSY COVER P-TERMINAL BOARD;L6(M62A),EUP	1	S.N.A
T0132	BP94-01848C	ASSY PCB MISC-DIGITAL;L6/EUROPE,M62A,H/C	1	
T0138	BP64-00383B	KNOB-HOLDER;L6,ABS,HB,GRAY,SVM3012	1	S.N.A
T0145	BP94-02182A	ASSY PCB MISC-ANALOG;SP46L3HXX/XEC,M62A,	1	
T0158	BP96-00937C	ASSY COVER P-MAIN;L6 ALL,HIPS, V0,GR503	1	
T0175	AA96-02816A	ASSY SPEAKER P;8ohm,L6(DLP),50,20W,TW+WF	2	S.N.A
T0186	BP96-00935D	ASSY COVER P-GRILLE;50L6,HIPS,HB,GR503,S	1	S.N.A
T0245	BP94-02140D	ASSY PCB MISC-KEY CONTROL;HLP5063W,L62B,	1	
T0260	BP67-00096A	MIRROR;MIRROR FRONT 50",GLASS,1100X580X5	1	
T0267	BP61-00910A	BRACKET-MIRROR TOP;50L6,AL6063 EXTR	1	S.N.A
T0268	BP94-02140G	ASSY PCB MISC-RMC LED;HLP5063W,L62B,ATLA	1	
T0268	3903-000145	CBF-POWER CORD;DT,EU,FP3/YES,U(IEC C13-R	1	
T0514	BP61-00912A	BRACKET-SUPPORT;50L6,SECC-1,T1.6,NTR,BAC	2	S.N.A
T0524	BP63-00412A	COVER-GRILLE;50L6,HIPS,HB,GR503,SV012P	1	S.N.A
T0527	BP61-01045A	BRACKET-COVER;L6,SECC-1,T1.2,NTR,BOTTOM	1	S.N.A
T0852	BP96-00936D	ASSY COVER P-MIDDLE;50L6,EUP,HIPS,HB,GR5	1	S.N.A
T0903	BP61-00528A	HOLDER-DUST;50L3,HIPS HB,GRAY	2	S.N.A
T0952	BP63-00294B	COVER DUST-ASSY;L6,HIPS,HB,GRAY	2	S.N.A

3-3 SP46L6HXX/BWT

You can search for the updated part code through ITSELF web site.
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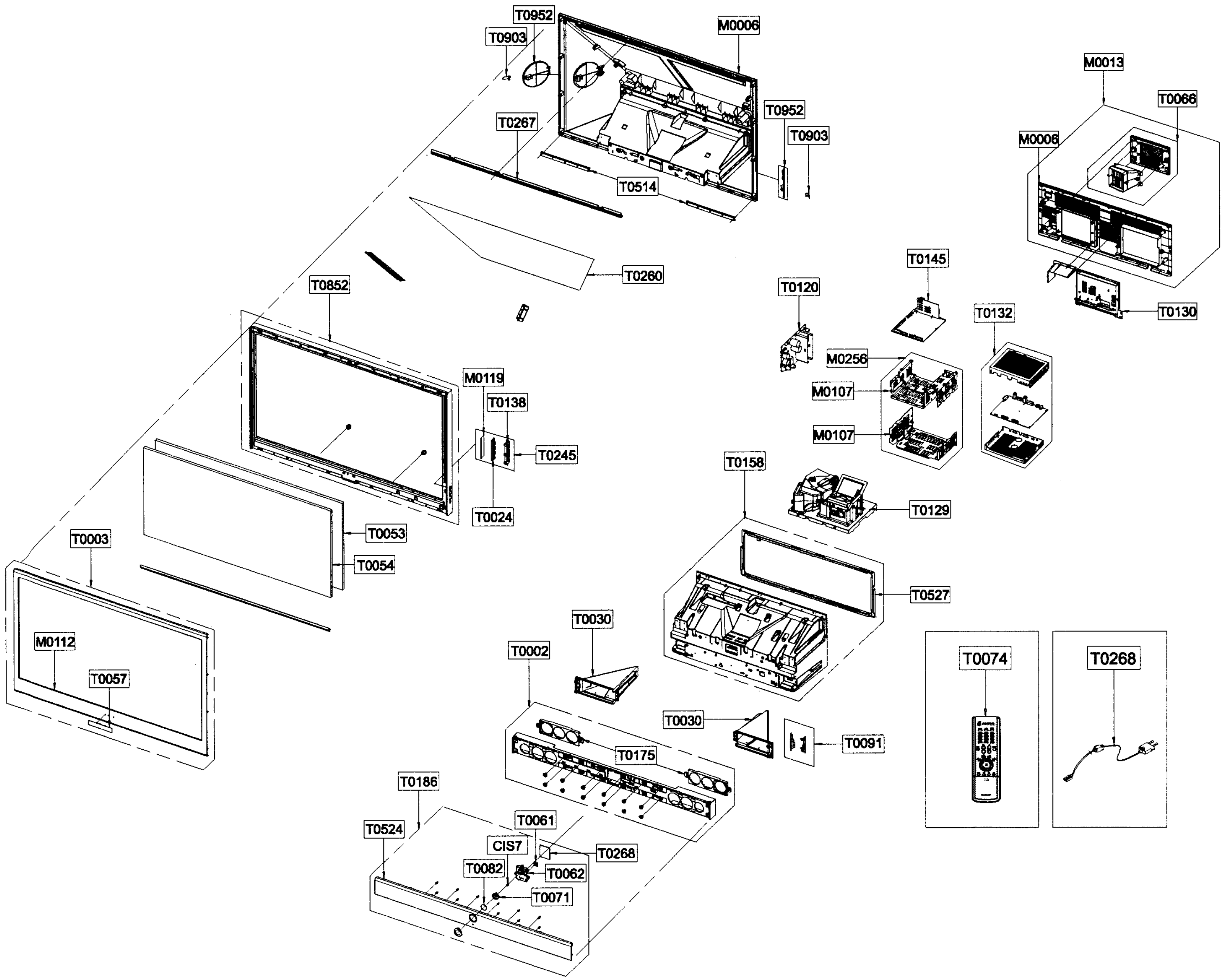
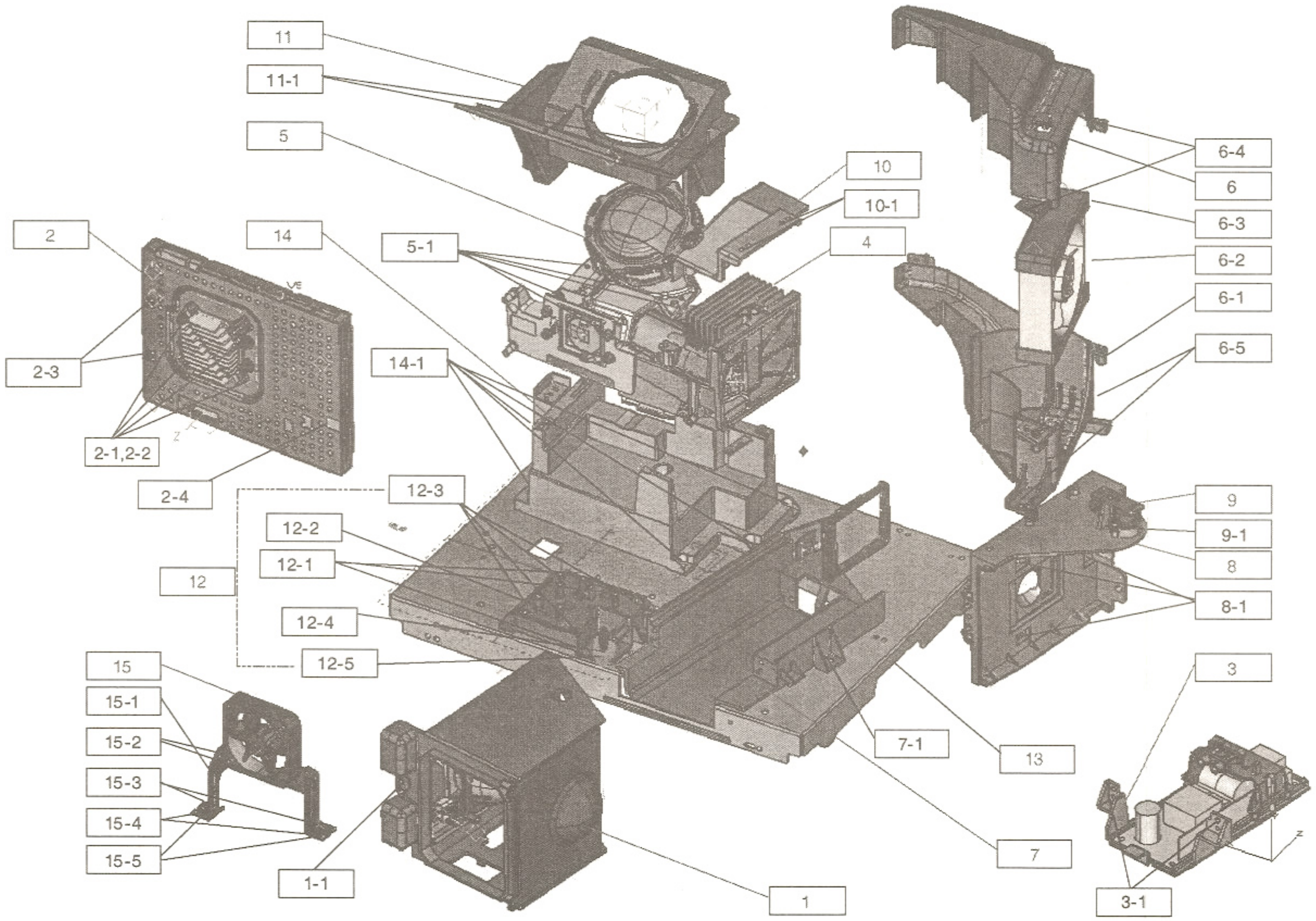


Loc.No	Code No	Description;Specification	Q'ty	S.N.A
CIS7	AA61-60003J	SPRING ETC-CS;-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A
M0006	BP63-00400A	COVER-REAR;46L6,HIPS,HB,GRAY,TOP	1	S.N.A
M0006	BP63-00401A	COVER-REAR BOTTOM;50L6,HIPS,V0,GRAY	1	S.N.A
M0013	BP96-00938B	ASSY COVER P-REAR BOTTOM;L6,HIPS V0,GR50	1	
M0107	BP61-00892A	BRACKET-PCB;50L3,SECC,T1.0,NTR,TOP(BUILT	1	S.N.A
M0107	BP61-00893A	BRACKET-PCB;50L3,SECC,T1.0,NTR,BOT(BUILT	1	S.N.A
M0112	BP63-00398D	COVER-FRONT;46L6,HIPS,HB,BLK,BKM1326,EUP	1	S.N.A
M0119	BP41-00124B	PCB CONTROL;HLP5063W,FR-4,2L,A,1.6T,245	1	S.N.A
M0256	BP96-00849F	ASSY BRACKET P-MAIN PCB;L3,L6,L7,SECC,T1	1	
T0002	BP96-00961B	ASSY COVER P-FRONT BOTTOM;46L6,HIPS,HB,G	1	
T0003	BP96-00993D	ASSY COVER P-FRONT;46L6,EUP,HIPS,HB,BLK,	1	
T0024	BP64-00384B	KNOB-FAMILY;L6,ABS,HB,GRAY,SVM-3012	1	S.N.A
T0030	BP96-00970B	ASSY COVER P-SIDE;46L6,HIPS,HB,GR503,LEF	1	
T0030	BP96-00971B	ASSY COVER P-SIDE;46L6,HIPS,HB,GR503,RIG	1	
T0053	BP67-00182A	SCREEN FRESNEL;46W,1038*596,T1.5	1	
T0054	BP67-00181A	SCREEN LENTI;46W,1038*596,2.4T	1	
T0057	BP64-00177A	BADGE-BRAND;ALL,AL,T1.5,70,11.3,BLK,SILI	1	S.N.A
T0061	BP64-00385A	WINDOW-REMOCON;50L3,PC,VIOLET	1	S.N.A
T0062	BP61-00530A	HOLDER-POWER;50L3,HIPS HB,GRAY	1	S.N.A
T0066	BP96-00535D	ASSY COVER P-DUCT;50L3,HIPS HB,GRY	1	S.N.A
T0071	BP64-00382A	INDICATOR-LED;50L3,ABS CLEAR (LG)	1	S.N.A
T0074	BN59-00378C	REMOCON;ATLANTIS,TM77,55,EX	1	
T0082	BP64-00309E	WINDOW LED;50L3,ACRYL,T2.0,HALF-MIRROR,E	1	S.N.A
T0091	BP94-02059L	ASSY PCB MISC-A/V SIDE;SP46L6HRX/XEC,M62	1	
T0120	BP94-02141T	ASSY PCB POWER;HURRICANE,M62A,PAL AREA,I	1	
T0129	BP96-00822K	ASSY ENGINE P-DLP PWL3;46L3(AIR),PHILIPS	1	
T0130	BP96-01005A	ASSY COVER P-TERMINAL BOARD;L6(M62A),EUP	1	S.N.A
T0132	BP94-01848C	ASSY PCB MISC-DIGITAL;L6/EUROPE,M62A,H/C	1	
T0138	BP64-00383B	KNOB-HOLDER;L6,ABS,HB,GRAY,SVM3012	1	S.N.A
T0145	BP94-02182A	ASSY PCB MISC-ANALOG;SP46L3HXX/XEC,M62A,	1	
T0158	BP96-00937C	ASSY COVER P-MAIN;L6 ALL,HIPS, V0,GR503	1	
T0175	AA96-02816A	ASSY SPEAKER P;8ohm,L6(DLP),50,20W,TW+WF	2	S.N.A
T0186	BP96-00964D	ASSY COVER P-GRILLE;46L6,HIPS,HB,GR503,S	1	S.N.A
T0245	BP94-02140D	ASSY PCB MISC-KEY CONTROL;HLP5063W,L62B,	1	
T0260	BP67-00095A	MIRROR;MIRROR FRONT 46",GLASS,1005X530X5	1	
T0267	BP61-00936A	BRACKET-MIRROR TOP;46L6,AL6063 EXTR	1	S.N.A
T0268	BP94-02140G	ASSY PCB MISC-RMC LED;HLP5063W,L62B,ATLA	1	
T0268	3903-000145	CBF-POWER CORD;DT,EU,FP3/YES,U(IEC C13-R	1	
T0514	BP61-00911A	BRACKET-SUPPORT;46L6,SECC-1,T1.6,NTR,BAC	2	S.N.A
T0524	BP63-00404A	COVER-GRILLE;46L6,HIPS,HB,GR503,SV012P	1	S.N.A
T0527	BP61-01045A	BRACKET-COVER;L6,SECC-1,T1.2,NTR,BOTTOM	1	S.N.A
T0852	BP96-00967D	ASSY COVER P-MIDDLE;46L6,EUP,HIPS HB,GR5	1	S.N.A
T0903	BP61-00528A	HOLDER-DUST;50L3,HIPS HB,GRAY	2	S.N.A
T0952	BP63-00294B	COVER DUST-ASSY;L6,HIPS,HB,GRAY	2	S.N.A

3-4 Engine Ass'y



L3 Engine Exploded View List						
No.	Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA
1	T0888	BP96-00826A	ASSY LAMP P	L3,LAMP SERVICE,PHILIPS 120W	1	S.A
1-1	CCM1	6006-001039	SCREW-MACHINE	WSP,PH,+,M4,L12,ZPC(YEL),S	1	S.N.A
2	T0703	BP96-00678B	ASSY DMD BOARD P	L3 PHILIPS,DMD BOARD,SE	1	S.A
2-1		AA61-01195A	SPRING ETC-COIL,DMD	B3K,SPRING STEEL	4	S.N.A
2-2	CCM1	6001-000819	SCREW-MACHINE	PWH,+,-,M3,L30,ZPC(YEL),SW	4	S.N.A
2-3	M0081	6006-000248	SCREW-TAPTITE	PWH,+,-,S,M3,L8,ZPC(YEL),S	2	S.N.A
2-4	M0081	6003-000264	SCREW-TAPTITE	PWH,+,B,M3,L6,ZPC(YEL),SWR	1	S.N.A
3	T0751	BP96-00690A	ASSY BALLAST P	L3,SERVICE BALLST	1	S.A
3-1	M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	2	S.N.A
4		BP98-00489A	ASSY K/D-COLOR WHEEL	L3 ENGINE,SERVICE	1	S.N.A
5		BP98-00490A	ASSY K/D-OPTIC MODULE	L3 ENGINE(AIR),SER	1	S.N.A
5-1	M0081	6003-000277	SCREW-TAPTITE	BH,+,B,M3,L12,ZPC(YEL),SWR	5	S.N.A
6		BP63-00295A	COVER DUCT-TOP23	SVP-50L3HR,PC G/F20	1	S.N.A
6-1		BP63-00296A	COVER DUCT-BOTTOM23	SVP-50L3HR,PC G/F20	1	S.N.A
6-2	T0286	BP31-00010B	FAN-DC	SVP-50L7XHD,UL94V-0, PBT,Wire Len	1	S.A
6-3		BP73-00012A	RUBBER-FAN,LAMP	SHP700,NBR,50,LOSS FACTO	2	S.N.A
6-4	M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	3	S.N.A
6-5	CCM1	6006-001039	SCREW-MACHINE	WSP,PH,+,M4,L12,ZPC(YEL),S	3	S.N.A
7		BP61-00732A	GUIDE-BALLAST 23	SVP-50L3HR,PC G/F 20	1	S.N.A
7-1	CCM1	6006-001039	SCREW-MACHINE	WSP,PH,+,M4,L12,ZPC(YEL),S	3	S.N.A
8		BP61-00726A	HOUSING-LAMP,BOTTOM 23	SVP-50L3HR,AL D/	1	S.N.A
8-1	M0081	6006-000249	SCREW-TAPTITE	PWH,+,-,S,M3,L7,ZPC(YEL),S	3	S.N.A
9	T0926	BP91-00612A	ASSY MISC-THERMOSTAT	HLP5063W,L62B	1	S.N.A
9-1	CCM1	6006-001035	SCREW-MACHINE	WSP,PH,+,M3,L8,ZPC(YEL),SW	2	S.N.A
10		BP63-00299A	COVER-CW 23	SVP-50L3HR,PC G/F20	1	S.N.A
10-1	CCM1	6006-001035	SCREW-MACHINE	WSP,PH,+,M3,L8,ZPC(YEL),SW	2	S.N.A
11		BP63-00338A	COVER-LENS PROJECTION	SVP-50L3,PS,T0.3	1	S.N.A
11-1	M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	2	S.N.A
12		BP61-00668A	HOLDER-INTERFACE	SVP-50L3HR,ABS V0 BLK	1	S.N.A
12-1	CCM1	6006-001039	SCREW-MACHINE	WSP,PH,+,M4,L12,ZPC(YEL),S	3	S.N.A
12-2	T0753	BP94-02149K	ASSY PCB S-ACTUATOR	DP,BP41-00121A,L62B,	1	S.A
12-3	M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	4	S.N.A
12-4		BP91-00775A	ASSY MISC-DETECTOR S/W	HLP5063WX/XAA,L62	1	S.N.A
12-5	M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	1	S.N.A
13		BP61-00730A	BRACKET-BASE 23	SVP-50L3HR,SECC,1.6	1	S.N.A
14		BP61-00590A	HOLDER-BASE	DLP L3,PPS G/F30	1	S.N.A
14-1	CCM1	6006-001039	SCREW-MACHINE	WSP,PH,+,M4,L12,ZPC(YEL),S	6	S.N.A
15	T0286	BP31-00011A	FAN-DC	AD0612LB-D72GL,P.B.T UL94-Vo,Wire	1	S.A
15-1		BP61-00595A	BRACKET-FAN DMD	DLP L3,SECC,T1.0	1	S.N.A
15-2	M0081	6006-000250	SCREW-TAPTITE	BH,+,WT,B,M3,L20,ZPC(YEL),	2	S.N.A
15-3	M0081	6003-000199	SCREW-TAPTITE	PWH,+,B,M3,L14,ZPC(YEL),SW	2	S.N.A
15-4		BN61-00236A	HOLDER-SPACER,RUBBER	B3K,BSBM	2	S.N.A
15-5		BP73-00040A	RUBBER-DAMP FAN	HLN507W,CR,30,BLACK,V0	2	S.N.A

4. Service Item

4-1 SP61L6HXX/BWT

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URL : http://itself.sec.samsung.co.kr

Loc.	Code No	Description;Specification	Q'ty	S.N.A
D0254	AA32-00012A	MODULE REMOCON;ORC-50HF2,38KHZ,940NM,MES	1	
T0568	AA39-30007B	CBF IF;-,T,150mm,1365#26	1	
CIS3	AA40-00129A	TUNER;TMQZ2-408A,PAL-CW,PAL Hyper,38.9MH	1	
CIS3	AA40-00143A	TUNER;TMQZ2-511A,TMQZ2-511A,PAL hyper,PA	1	
T0074	BN59-00378C	REMOCON;ATLANTIS,TM77,55,EX	1	
M0125	BP39-00106C	CBF SIGNAL-DVI(D);HLP5063WX,24P/24P,2027	1	
T0049	BP47-00021A	LAMP-BALLAST;EUC 120 P/H11,120W,130mm ca	1	
T0260	BP67-00098A	MIRROR;FRONT MIRROR 61",GLASS,34.85MM,13	1	
T0054	BP67-00164A	SCREEN LENTI;61W,1381*790,T2.5	1	
T0053	BP67-00165A	SCREEN FRESNEL;61W,1381*790,1.5T	1	
T0269	BP94-00485A	ASSY PCB S-ACTUATOR/SUB DETECT;HLP5063WX	1	
T0132	BP94-01848C	ASSY PCB MISC-DIGITAL;L6/EUROPE,M62A,H/C	1	
T0091	BP94-02059P	ASSY PCB MISC-A/V SIDE;SP61L6,M62A,H/C	1	
T0245	BP94-02140E	ASSY PCB MISC-KEY CONTROL;HLP5663/6163W,	1	
T0268	BP94-02140G	ASSY PCB MISC-RMC LED;HLP5063W,L62B,ATLA	1	
T0120	BP94-02141T	ASSY PCB POWER;HURRICANE,M62A,PAL AREA,I	1	
T0753	BP94-02149K	ASSY PCB S-ACTUATOR;DP,BP41-00121A,L62B,	1	
T0145	BP94-02182A	ASSY PCB MISC-ANALOG;SP46L3HXX/XEC,M62A,	1	
CN268	BP96-00693B	ASSY BOARD P-JACK;Cleopatra,EU,SCART+COM	1	
T0652	BP96-00555A	ASSY LENS P-HD3 DLP OPTIC MODU;BLK,00000	1	
T0652	BP96-00555A	ASSY LENS P-HD3 DLP OPTIC MODU;BLK,00000	1	
T0889	BP96-00674A	ASSY COLOR WHEEL P;SVP-50L3HR	1	
T0703	BP96-00678B	ASSY DMD BOARD P;L3 PHILIPS,DMD BOARD,SE	1	
T0751	BP96-00690A	ASSY BALLAST P;L3,SERVICE BALLST	1	
T0129	BP96-00822N	ASSY ENGINE P-DLP PWL3;61L3(AIR),PHILIPS	1	
T0888	BP96-00826A	ASSY LAMP P;L3,LAMP SERVICE,PHILIPS 120W	1	
M0256	BP96-00849F	ASSY BRACKET P-MAIN PCB;L3,L6,L7,SECC,T1	1	
T0158	BP96-00937C	ASSY COVER P-MAIN;L6 ALL,HIPS, V0,GR503	1	
M0013	BP96-00938B	ASSY COVER P-REAR BOTTOM;L6,HIPS V0,GR50	1	
T0010	BP96-00940A	ASSY HOLDER P-MIRROR LEFT;L6 ALL, L8,HIP	1	
T0010	BP96-00941A	ASSY HOLDER P-MIRROR RIGHT;L6 ALL, L8,HI	1	
T0002	BP96-00963B	ASSY COVER P-FRONT BOTTOM;61L6,HIPS,HB,G	1	
T0030	BP96-00975B	ASSY COVER P-SIDE;61L6,HIPS,HB,GR503,LEF	1	
T0030	BP96-00976B	ASSY COVER P-SIDE;61L6,HIPS,HB,GR503,RIG	1	
M0003	BP96-00990A	ASSY COVER P-STAND;61L6,HIPS,HB,GR503,SV	1	
T0003	BP96-00996E	ASSY COVER P-FRONT;61L6,EUP(M62A),HIPS,H	1	
M0018	BP97-00967A	ASSY MICOM;M62A,29DL32,4Mx8/2Mx16Bit,T-H	1	

4-2 SP46L6HXX/BWT

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Loc.	Code No	Description;Specitication	Q'ty	S.N.A
D0254	AA32-00012A	MODULE REMOCON;ORC-50HF2,38KHZ,940NM,MES	1	
T0568	AA39-30007B	CBF IF;-,T,150mm,1365#26	1	
CIS3	AA40-00129A	TUNER;TMQZ2-408A,PAL-CW,PAL Hyper,38.9MH	1	
CIS3	AA40-00143A	TUNER;TMQZ2-511A,TMQZ2-511A,PAL hyper,PA	1	
T0074	BN59-00378C	REMOCON;ATLANTIS,TM77,55,EX	1	
M0125	BP39-00106C	CBF SIGNAL-DVI(D);HLP5063WX,24P/24P,2027	1	
T0049	BP47-00021A	LAMP-BALLAST;EUC 120 P/H11,120W,130mm ca	1	
T0260	BP67-00095A	MIRROR;MIRROR FRONT 46",GLASS,1005X530X5	1	
T0054	BP67-00181A	SCREEN LENTI;46W,1038*596,2.4T	1	
T0053	BP67-00182A	SCREEN FRESNEL;46W,1038*596,T1.5	1	
T0269	BP94-00485A	ASSY PCB S-ACTUATOR/SUB DETECT;HLP5063WX	1	
T0091	BP94-02059L	ASSY PCB MISC-A/V SIDE;SP46L6HRX/XEC,M62	1	
T0245	BP94-02140D	ASSY PCB MISC-KEY CONTROL;HLP5063W,L62B,	1	
T0268	BP94-02140G	ASSY PCB MISC-RMC LED;HLP5063W,L62B,ATLA	1	
T0120	BP94-02141T	ASSY PCB POWER;HURRICANE,M62A,PAL AREA,I	1	
T0753	BP94-02149K	ASSY PCB S-ACTUATOR;DP,BP41-00121A,L62B,	1	
T0132	BP94-01848C	ASSY PCB MISC-DIGITAL;L6/EUROPE,M62A,H/C	1	
T0145	BP94-02182A	ASSY PCB MISC-ANALOG;SP46L3HXX/XEC,M62A,	1	
T0889	BP96-00674A	ASSY COLOR WHEEL P;SVP-50L3HR	1	
T0703	BP96-00678B	ASSY DMD BOARD P;L3 PHILIPS,DMD BOARD,SE	1	
T0751	BP96-00690A	ASSY BALLAST P;L3,SERVICE BALLST	1	
CN268	BP96-00693B	ASSY BOARD P-JACK;Cleopatra,EU,SCART+COM	1	
T0129	BP96-00822K	ASSY ENGINE P-DLP PWL3;46L3(AIR),PHILIPS	1	
T0888	BP96-00826A	ASSY LAMP P;L3,LAMP SERVICE,PHILIPS 120W	1	
M0256	BP96-00849F	ASSY BRACKET P-MAIN PCB;L3,L6,L7,SECC,T1	1	
T0158	BP96-00937C	ASSY COVER P-MAIN;L6 ALL,HIPS, V0,GR503	1	
M0013	BP96-00938B	ASSY COVER P-REAR BOTTOM;L6,HIPS V0,GR50	1	
T0010	BP96-00940A	ASSY HOLDER P-MIRROR LEFT;L6 ALL, L8,HIP	1	
T0010	BP96-00941A	ASSY HOLDER P-MIRROR RIGHT;L6 ALL, L8,HI	1	
T0002	BP96-00961B	ASSY COVER P-FRONT BOTTOM;46L6,HIPS,HB,G	1	
T0030	BP96-00970B	ASSY COVER P-SIDE;46L6,HIPS,HB,GR503,LEF	1	
T0030	BP96-00971B	ASSY COVER P-SIDE;46L6,HIPS,HB,GR503,RIG	1	
T0003	BP96-00993D	ASSY COVER P-FRONT;46L6,EUP,HIPS,HB,BLK,	1	
T0445	BP96-00997A	ASSY BRACKET P-SCREEN BOTTOM;46L6,AL6063	1	
M0018	BP97-00967A	ASSY MICOM;M62A,29DL32,4Mx8/2Mx16Bit,T-H	1	

4-3 SP50L6HXX/BWT

You can search for the updated part code through ITSELF web site.
URL : http://itself.sec.samsung.co.kr

Loc.	Code No	Description;Specification	Q'ty	S.N.A
D0254	AA32-00012A	MODULE REMOCON;ORC-50HF2,38KHZ,940NM,MES	1	
T0568	AA39-30007B	CBF IF;-,T,150mm,1365#26	1	
CIS3	AA40-00129A	TUNER;TMQZ2-408A,PAL-CW,PAL Hyper,38.9MH	1	
CIS3	AA40-00143A	TUNER;TMQZ2-511A,TMQZ2-511A,PAL hyper,PA	1	
T0074	BN59-00378C	REMOCON;ATLANTIS,TM77,55,EX	1	
M0125	BP39-00106C	CBF SIGNAL-DVI(D);HLP5063WX,24P/24P,2027	1	
T0049	BP47-00021A	LAMP-BALLAST;EUC 120 P/H11,120W,130mm ca	1	
T0260	BP67-00096A	MIRROR;MIRROR FRONT 50",GLASS,1100X580X5	1	
T0054	BP67-00137A	SCREEN LENTI;50W,1126*646,2.4T	1	
T0053	BP67-00140A	SCREEN FRESNEL;50W,1126*646,1.5T	1	
T0269	BP94-00485A	ASSY PCB S-ACTUATOR/SUB DETECT;HLP5063WX	1	
T0091	BP94-02059L	ASSY PCB MISC-A/V SIDE;SP46L6HRX/XEC,M62	1	
T0245	BP94-02140D	ASSY PCB MISC-KEY CONTROL;HLP5063W,L62B,	1	
T0268	BP94-02140G	ASSY PCB MISC-RMC LED;HLP5063W,L62B,ATLA	1	
T0120	BP94-02141T	ASSY PCB POWER;HURRICANE,M62A,PAL AREA,I	1	
T0753	BP94-02149K	ASSY PCB S-ACTUATOR;DP,BP41-00121A,L62B,	1	
T0132	BP94-01848C	ASSY PCB MISC-DIGITAL;L6/EUROPE,M62A,H/C	1	
T0145	BP94-02182A	ASSY PCB MISC-ANALOG;SP46L3HXX/XEC,M62A,	1	
T0889	BP96-00674A	ASSY COLOR WHEEL P;SVP-50L3HR	1	
T0703	BP96-00678B	ASSY DMD BOARD P;L3 PHILIPS,DMD BOARD,SE	1	
T0751	BP96-00690A	ASSY BALLAST P;L3,SERVICE BALLST	1	
CN268	BP96-00693B	ASSY BOARD P-JACK;Cleopatra,EU,SCART+COM	1	
T0129	BP96-00822L	ASSY ENGINE P-DLP PWL3;50L3(AIR),PHILIPS	1	
T0888	BP96-00826A	ASSY LAMP P;L3,LAMP SERVICE,PHILIPS 120W	1	
M0256	BP96-00849F	ASSY BRACKET P-MAIN PCB;L3,L6,L7,SECC,T1	1	
T0158	BP96-00937C	ASSY COVER P-MAIN;L6 ALL,HIPS, V0,GR503	1	
M0013	BP96-00938B	ASSY COVER P-REAR BOTTOM;L6,HIPS V0,GR50	1	
T0010	BP96-00940A	ASSY HOLDER P-MIRROR LEFT;L6 ALL, L8,HIP	1	
T0010	BP96-00941A	ASSY HOLDER P-MIRROR RIGHT;L6 ALL, L8,HI	1	
T0002	BP96-00934B	ASSY COVER P-FRONT BOTTOM;50L6,HIPS HB,G	1	
T0030	BP96-00942B	ASSY COVER P-SIDE;50L6,HIPS,HB,GR503,LEF	1	
T0030	BP96-00943B	ASSY COVER P-SIDE;50L6,HIPS,HB,GR503,RIG	1	
T0003	BP96-00994D	ASSY COVER P-FRONT;50L6,HIPS,HB,BLK,BKM1	1	
T0445	BP96-00998A	ASSY BRACKET P-SCREEN BOTTOM;50L6,AL6063	1	S.N.A
M0018	BP97-00967A	ASSY MICOM;M62A,29DL32,4Mx8/2Mx16Bit,T-H	1	

MEMO

5. Block Diagram

5-1 Analog Board PCB Layout

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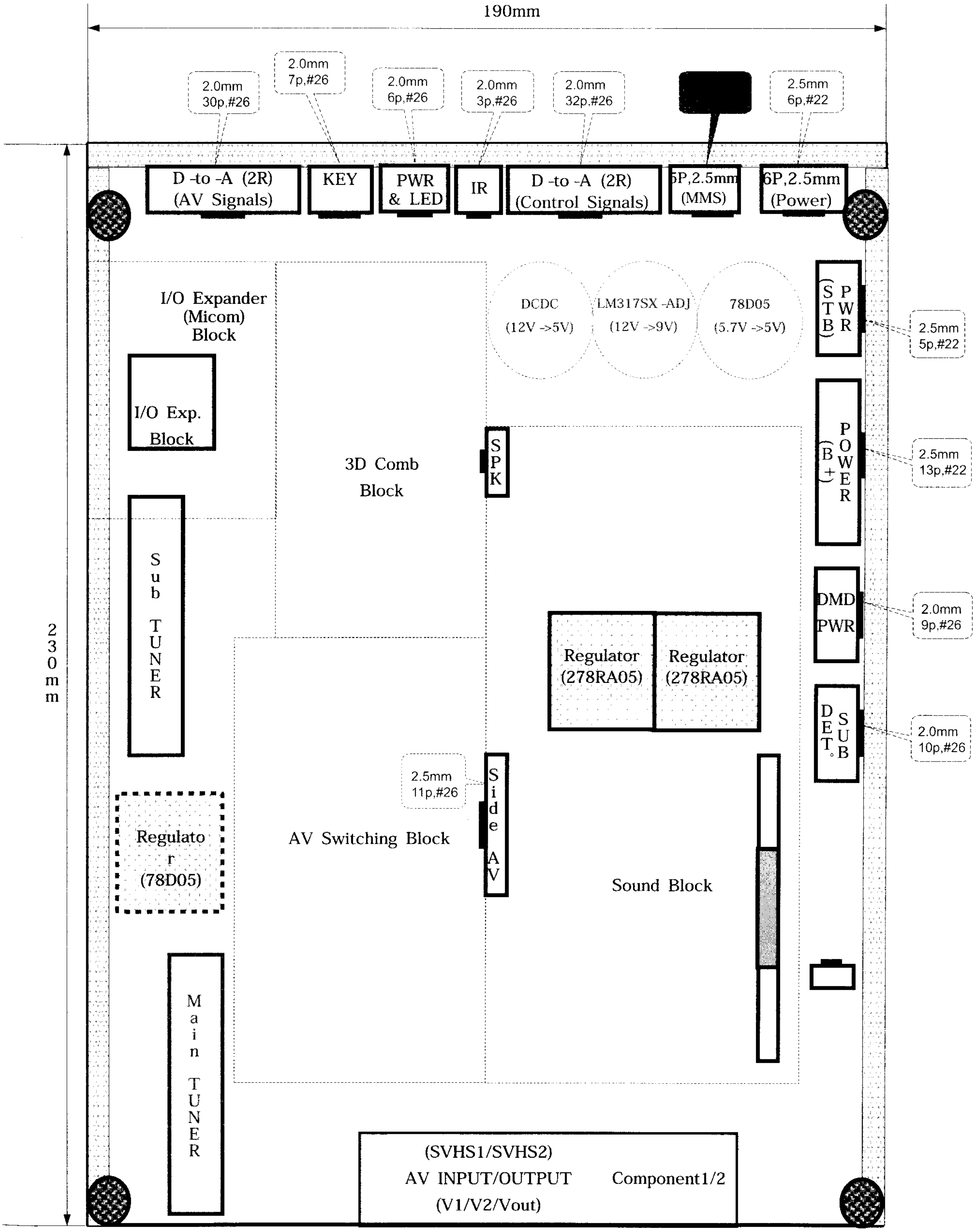
190mm
230mm
2.0mm 30p,#26
2.0mm 7p,#26
2.0mm 6p,#26
2.0mm 3p,#26
2.0mm 32p,#26
2.5mm 6p,#22
D-to-A (2R) (AV Signals)
KEY
PWR & LED
IR
D-to-A (2R) (Control Signals)
5P,2.5mm (MMS)
6P,2.5mm (Power)
I/O Expander (Micom) Block
I/O Exp. Block
3D Comb Block
DCDC (12V->5V)
LM317SX-ADJ (12V->9V)
78D05 (5.7V->5V)
STB PWR
2.5mm 5p,#22
B+ POWER
2.5mm 13p,#22
SPK
DMD PWR
2.0mm 9p,#26
DET SUB
2.0mm 10p,#26
Sub TUNER
Regulator (278RA05)
Regulator (278RA05)
2.5mm 11p,#26
Side AV
Regulator (78D05)
AV Switching Block
Sound Block
Main TUNER
(SVHS1/SVHS2) AV INPUT/OUTPUT (V1/V2/Vout)
Component1/2

5-2 Digital Board Block Diagram

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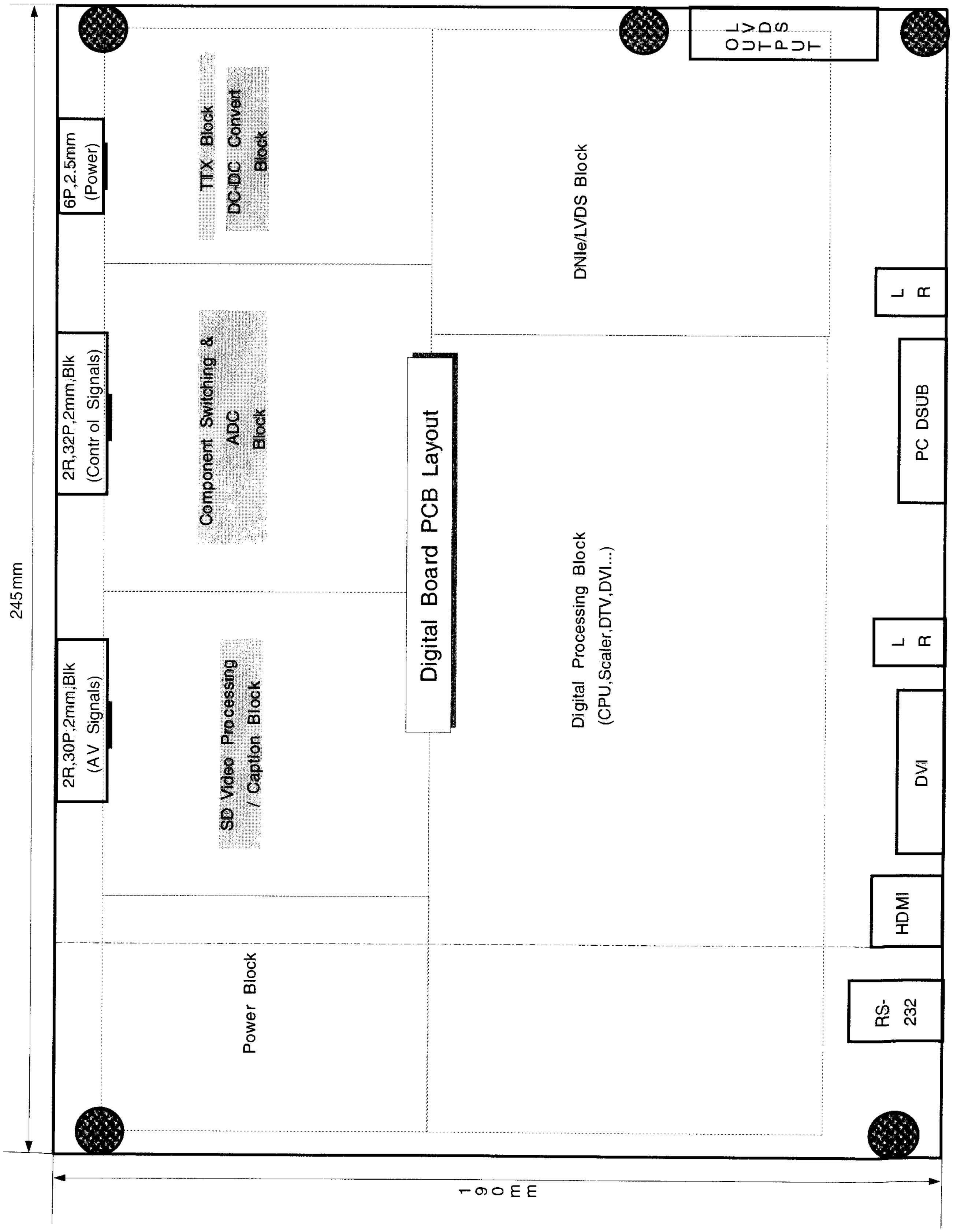
Digital Board PCB Layout
245mm
190mm
6P,2.5mm (Power)
2R,32P,2mm,Blk (Contr ol Signals)
2R,30P,2mm,Blk (AV Signals)
TTX Block
DC-DC Convert Block
Component Switching & ADC Block
SD Video Processing / Caption Block
Power Block
DNIe/LVDS Block
Digital Processing Block (CPU,Scaler,DTV,DVI..)
LVDS OUTPUT
L R
PC DSUB
L R
DVI
HDMI
RS-232

5-3 AV Switching (TEA64XX) Block

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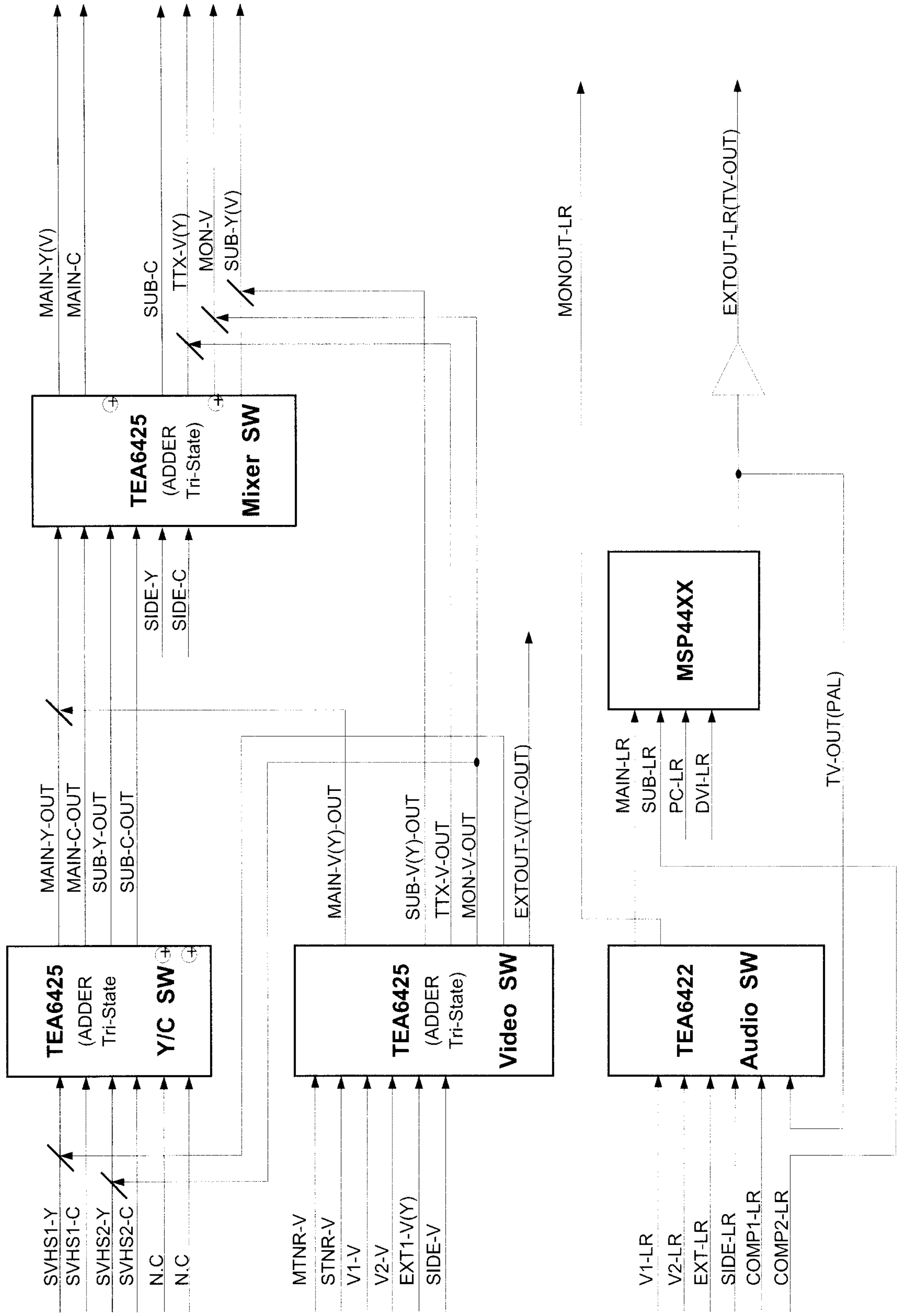
MAIN-Y(V)
MAIN-C
SUB-C
TTX-V(Y)
MON-V
SUB-Y(V)
MONOUT-LR
EXTOUT-LR(TV-OUT)
TEA6425
(ADDER
Tri-State)
Mixer SW
SIDE-Y
SIDE-C
MSP44XX
TV-OUT(PAL)
MAIN-Y-OUT
MAIN-C-OUT
SUB-Y-OUT
SUB-C-OUT
MAIN-V(Y)-OUT
SUB-V(Y)-OUT
TTX-V-OUT
MON-V-OUT
EXTOUT-V(TV-OUT)
MAIN-LR
SUB-LR
PC-LR
DVI-LR
TEA6425
(ADDER
Tri-State
Y/C SW
TEA6425
(ADDER
Tri-State)
Video SW
TEA6422
Audio SW
SVHS1-Y
SVHS1-C
SVHS2-Y
SVHS2-C
N.C
N.C
MTNR-V
STNR-V
V1-V
V2-V
EXT1-V(Y)
SIDE-V
V1-LR
V2-LR
EXT-LR
SIDE-LR
COMP1-LR
COMP2-LR

MEMO

6. Schematic Diagrams

6-1 ANALOG

6-1-1 Power Regulator

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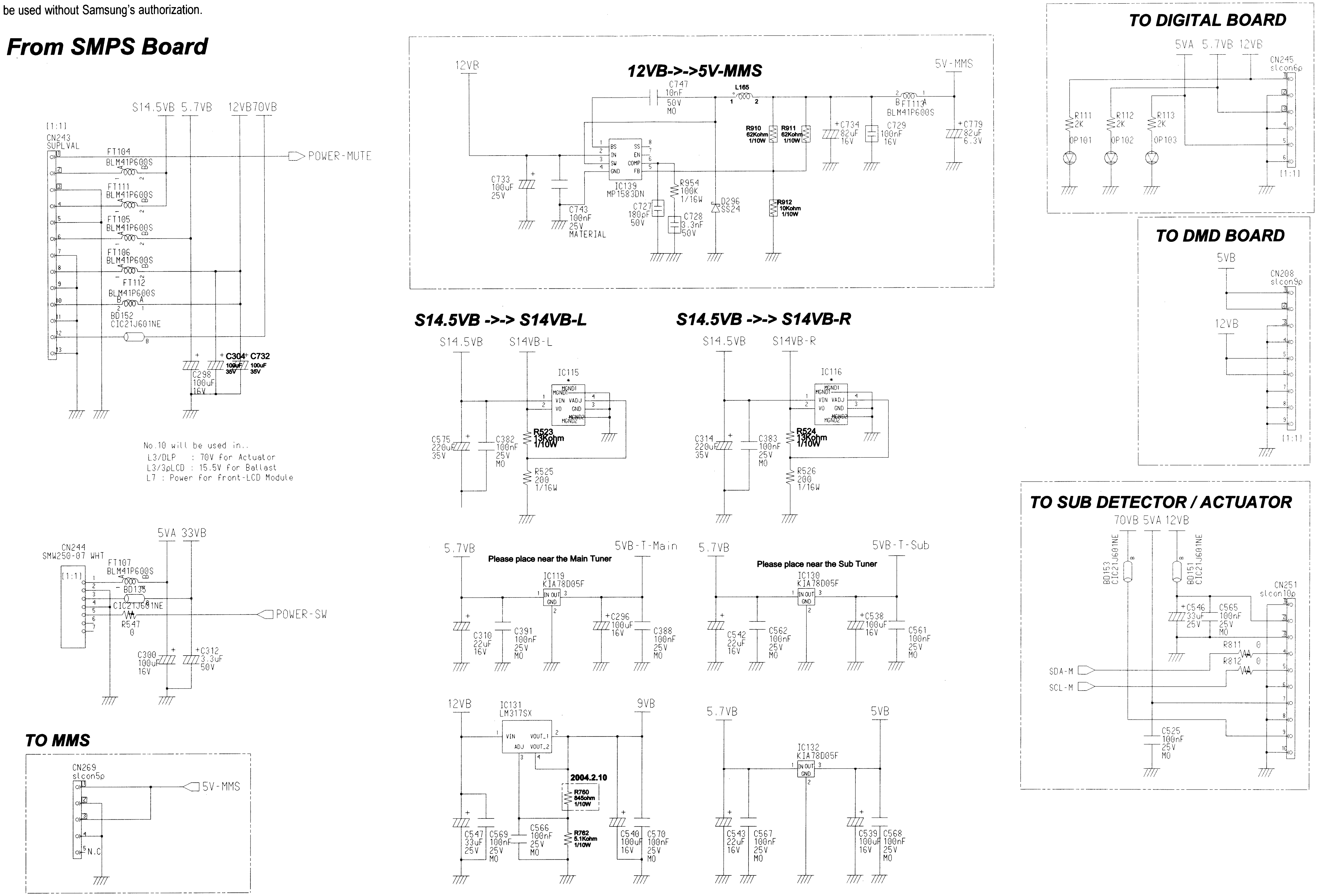
From SMPS Board
S14.5VB 5.7VB 12VB 70VB
[1:1]
CN243
SUPLVAL
FT104
BLM41P600S
POWER-MUTE
FT111
BLM41P600S
FT105
BLM41P600S
FT106
BLM41P600S
FT112
BLM41P600S
BD152
CIC21J601NE
C304 100uF 35V
C732 100uF 35V
C298 100uF 16V
No.10 will be used in..
L3/DLP : 70V for Actuator
L3/3pLCD : 15.5V for Ballast
L7 : Power for front-LCD Module
5VA 33VB
CN244
SMW250-07 WHT
[1:1]
FT107
BLM41P600S
BD135
CIC21J601NE
R547
0
POWER-SW
C300 100uF 16V
C312 3.3uF 50V
TO MMS
CN269
slcon5p
5V-MMS
N.C
12VB->->5V-MMS
12VB
5V-MMS
C747
10nF
50V
MO
L165
FT113
BLM41P600S
R910 62Kohm 1/10W
R911 62Kohm 1/10W
C734 82uF 16V
C729 100nF 16V
C779 82uF 6.3V
BS SS
IN EN
SW COMP
GND FB
IC139
MP1583DN
C733 100uF 25V
C743 100nF 25V MATERIAL
C727 180pF 50V
R954 100K 1/16W
C728 3.3nF 50V
D296 SS24
R912 10Kohm 1/10W
S14.5VB ->-> S14VB-L
S14.5VB
S14VB-L
IC115
MGND1
VIN VADJ
VO GND
MGND2
C575 220uF 35V
C382 100nF 25V MO
R523 13Kohm 1/10W
R525 200 1/16W
S14.5VB ->-> S14VB-R
S14.5VB
S14VB-R
IC116
C314 220uF 35V
C383 100nF 25V MO
R524 13Kohm 1/10W
R526 200 1/16W
5.7VB
5VB-T-Main
Please place near the Main Tuner
IC119
KIA78D05F
IN OUT
GND
C310 22uF 16V
C391 100nF 25V MO
C296 100uF 16V
C388 100nF 25V MO
5.7VB
5VB-T-Sub
Please place near the Sub Tuner
IC130
KIA78D05F
C542 22uF 16V
C562 100nF 25V MO
C538 100uF 16V
C561 100nF 25V MO
12VB
IC131
LM317SX
VIN VOUT_1
ADJ VOUT_2
9VB
2004.2.10
R760 845ohm 1/10W
R762 5.1Kohm 1/10W
C547 33uF 25V
C569 100nF 25V MO
C566 100nF 25V MO
C540 100uF 16V
C570 100nF 25V MO
5.7VB
5VB
IC132
KIA78D05F
C543 22uF 16V
C567 100nF 25V MO
C539 100uF 16V
C568 100nF 25V MO
TO DIGITAL BOARD
5VA 5.7VB 12VB
CN245
slcon6p
R111 2K
R112 2K
R113 2K
OP101
OP102
OP103
[1:1]
TO DMD BOARD
5VB
CN208
slcon9p
12VB
[1:1]
TO SUB DETECTOR / ACTUATOR
70VB 5VA 12VB
BD153 CIC21J601NE
BD151 CIC21J601NE
CN251
slcon10p
C546 33uF 25V
C565 100nF 25V MO
R811 0
R812 0
SDA-M
SCL-M
C525 100nF 25V MO

6-1-2 Tuner Splitter & Side AV

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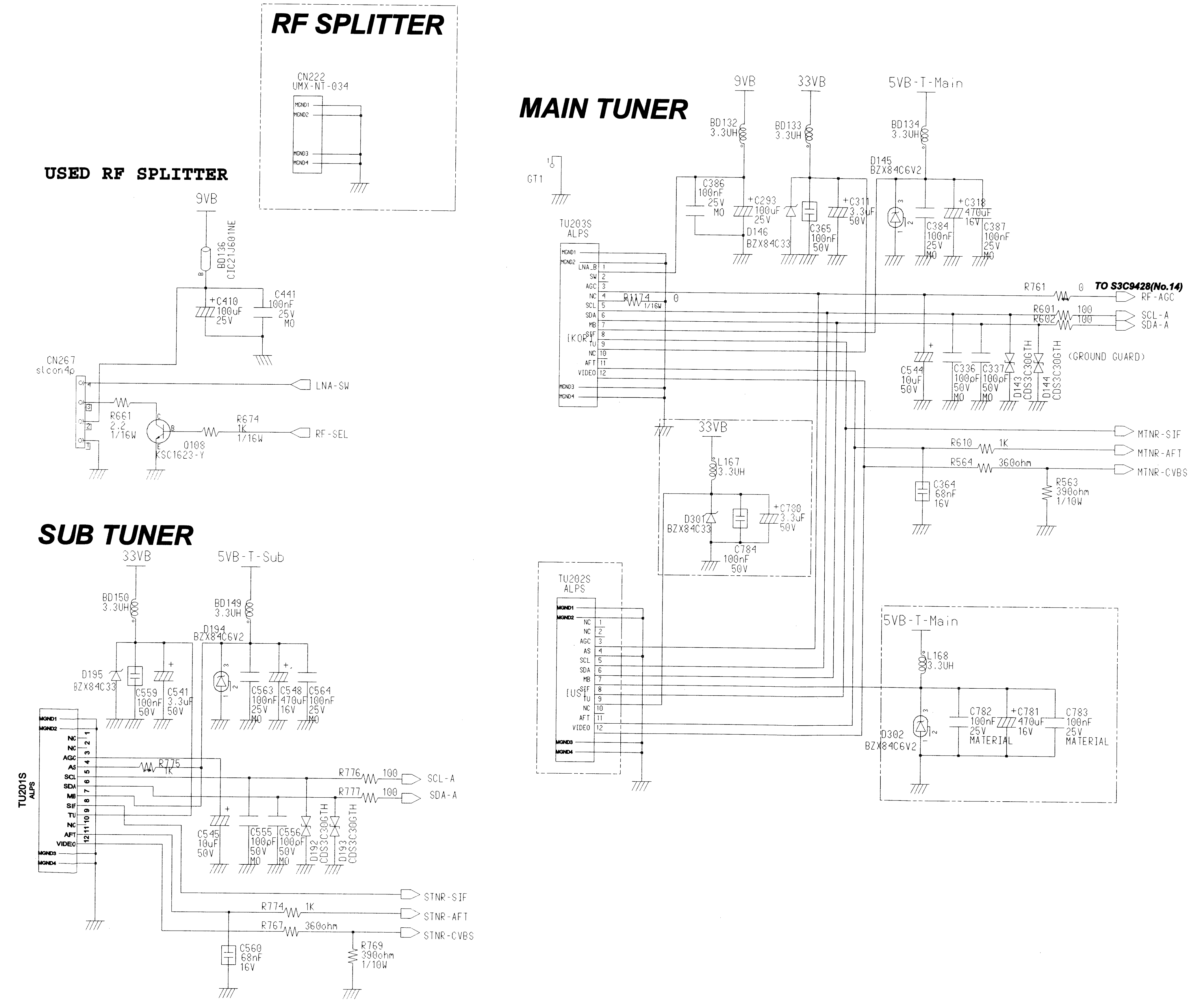

RF SPLITTER
CN222
UMX-NT-034
MGND1
MGND2
MGND3
MGND4
USED RF SPLITTER
9VB
BD136
CIC21J601NE
+C410
100uF
25V
C441
100nF
25V
MO
CN267
slcon4p
R661
2.2
1/16W
Q108
KSC1623-Y
R674
1K
1/16W
LNA-SW
RF-SEL
MAIN TUNER
9VB
33VB
5VB-T-Main
BD132
3.3UH
BD133
3.3UH
BD134
3.3UH
GT1
D145
BZX84C6V2
C386
100nF
25V
MO
+C293
100uF
25V
D146
BZX84C33
C365
100nF
50V
+C311
3.3uF
50V
C384
100nF
25V
MO
+C318
470uF
16V
C387
100nF
25V
MO
TU203S
ALPS
[KOR]
LNA_B
SW
AGC
NC
SCL
SDA
MB
SIF
TU
NC
AFT
VIDEO
R1174
1/16W
0
R761
0
TO S3C9428(No.14)
RF-AGC
R601
100
R602
100
SCL-A
SDA-A
C544
10uF
50V
C336
100pF
50V
MO
C337
100pF
50V
MO
D143
CDS3C30GTH
D144
CDS3C30GTH
(GROUND GUARD)
33VB
L167
3.3UH
D301
BZX84C33
+C780
3.3uF
50V
C784
100nF
50V
MTNR-SIF
R610
1K
MTNR-AFT
R564
360ohm
MTNR-CVBS
C364
68nF
16V
R563
390ohm
1/10W
TU202S
ALPS
[US]
5VB-T-Main
L168
3.3UH
D302
BZX84C6V2
C782
100nF
25V
MATERIAL
+C781
470uF
16V
C783
100nF
25V
MATERIAL
SUB TUNER
33VB
5VB-T-Sub
BD150
3.3UH
BD149
3.3UH
D194
BZX84C6V2
D195
BZX84C33
C559
100nF
50V
C541
3.3uF
50V
C563
100nF
25V
MO
C548
470uF
16V
C564
100nF
25V
MO
TU201S
ALPS
R775
1K
R776
100
SCL-A
R777
100
SDA-A
C545
10uF
50V
C555
100pF
50V
MO
C556
100pF
50V
MO
D192
CDS3C30GTH
D193
CDS3C30GTH
STNR-SIF
R774
1K
STNR-AFT
R767
360ohm
STNR-CVBS
C560
68nF
16V
R769
390ohm
1/10W

NTSC/PAL OPTION

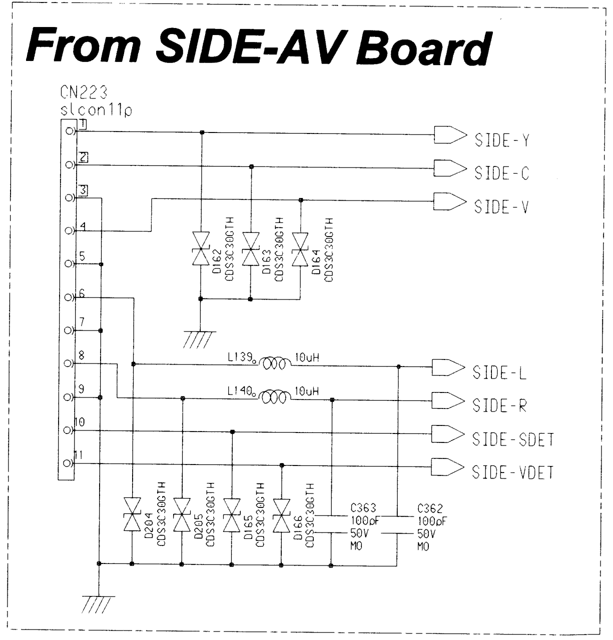
Use C544/C545 as follows..

NTSC : 2402-000120, 10uF/50V
PAL : 2402-001042, 100uF/16V

Use the Tuners as follows...

	(MAIN) **TU203**	**(MAIN)** **TU202**	**(SUB)** **TU201**
NTSC/US	**X**	**AA40-00122A**	**AA40-00122A**
NTSC/KOR	**AA40-00123A**	**X**	**AA40-00122A**
PAL/EUROPE	**AA40-00127A**	**X**	**AA40-00129A**
PAL/ASIA	**AA40-00130A**	**X**	**AA40-00132A**

In NTSC/US.. Use additional CN222(Splitter)


From SIDE-AV Board
CN223
slcon11p
SIDE-Y
SIDE-C
SIDE-V
D162
CDS3C30GTH
D163
CDS3C30GTH
D164
CDS3C30GTH
L139
10uH
L140
10uH
SIDE-L
SIDE-R
SIDE-SDET
SIDE-VDET
D204
CDS3C30GTH
D205
CDS3C30GTH
D165
CDS3C30GTH
D166
CDS3C30GTH
C363
100pF
50V
MO
C362
100pF
50V
MO

6-1-3 AV IN_OUT

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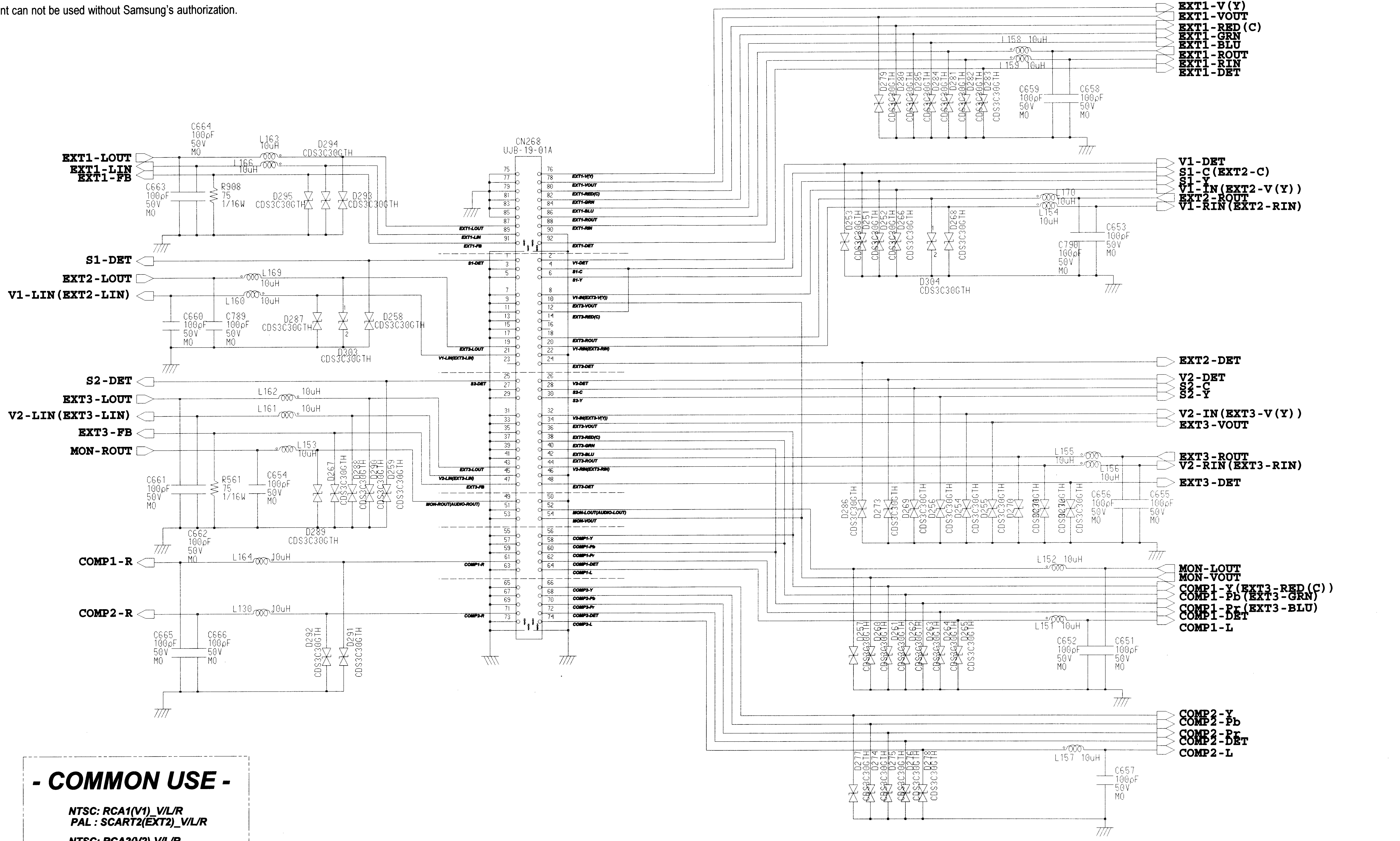
CN268
UJB-19-01A
EXT1-LOUT
EXT1-LIN
EXT1-FB
S1-DET
EXT2-LOUT
V1-LIN(EXT2-LIN)
S2-DET
EXT3-LOUT
V2-LIN(EXT3-LIN)
EXT3-FB
MON-ROUT
COMP1-R
COMP2-R
EXT1-V(Y)
EXT1-VOUT
EXT1-RED(C)
EXT1-GRN
EXT1-BLU
EXT1-ROUT
EXT1-RIN
EXT1-DET
V1-DET
S1-C(EXT2-C)
S1-Y
V1-IN(EXT2-V(Y))
EXT2-ROUT
V1-RIN(EXT2-RIN)
EXT2-DET
V2-DET
S2-C
S2-Y
V2-IN(EXT3-V(Y))
EXT3-VOUT
EXT3-ROUT
V2-RIN(EXT3-RIN)
EXT3-DET
MON-LOUT
MON-VOUT
COMP1-Y(EXT3-RED(C))
COMP1-Pb(EXT3-GRN)
COMP1-Pr(EXT3-BLU)
COMP1-DET
COMP1-L
COMP2-Y
COMP2-Pb
COMP2-Pr
COMP2-DET
COMP2-L
C664 100pF 50V MO
L163 10uH
L166 10uH
D294 CDS3C30GTH
C663 100pF 50V MO
R908 75 1/16W
D295 CDS3C30GTH
D293 CDS3C30GTH
L169 10uH
L160 10uH
C660 100pF 50V MO
C789 100pF 50V MO
D287 CDS3C30GTH
D258 CDS3C30GTH
D303 CDS3C30GTH
L162 10uH
L161 10uH
L153 10uH
C661 100pF 50V MO
R561 75 1/16W
C654 100pF 50V MO
C662 100pF 50V MO
D289 CDS3C30GTH
L164 10uH
L130 10uH
C665 100pF 50V MO
C666 100pF 50V MO
D292 CDS3C30GTH
D291 CDS3C30GTH
L158 10uH
L159 10uH
C659 100pF 50V MO
C658 100pF 50V MO
L170 10uH
L154 10uH
C790 100pF 50V MO
C653 100pF 50V MO
D304 CDS3C30GTH
L155 10uH
L156 10uH
C656 100pF 50V MO
C655 100pF 50V MO
L152 10uH
L151 10uH
C652 100pF 50V MO
C651 100pF 50V MO
L157 10uH
C657 100pF 50V MO

- COMMON USE -

NTSC: RCA1(V1)_V/L/R
PAL : SCART2(EXT2)_V/L/R

NTSC: RCA2(V2)-V/L/R
PAL : SCART3(EXT3)-V/L/R

NTSC: MONITOR-OUT_V/L/R
PAL : SCART2_(EXT2)-OUT_V/L/R

6-1-4 AV Switching_Video

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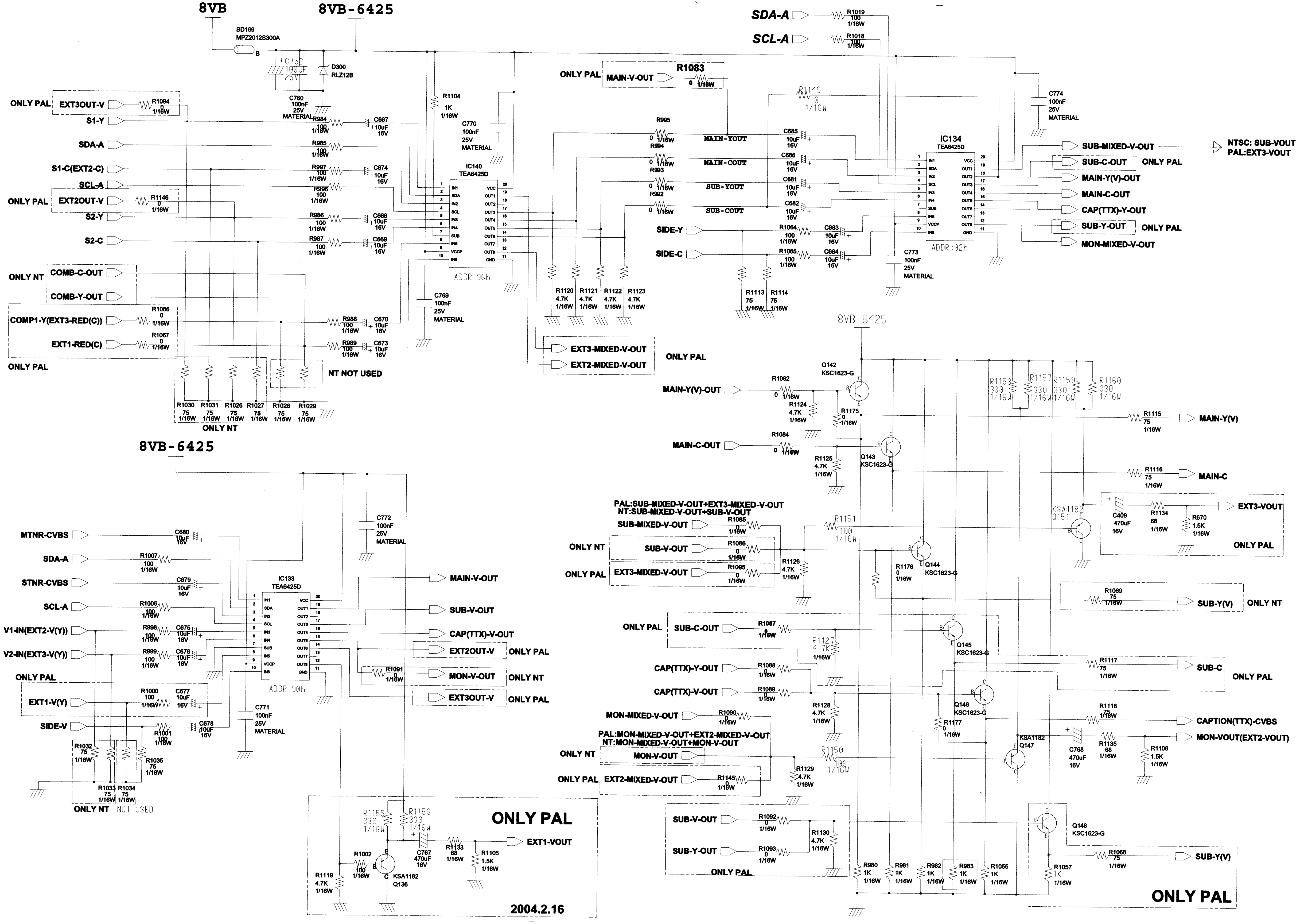
8VB
8VB-6425
BD169
MPZ2012S300A
C752
100uF
25V
D300
RLZ12B
C760
100nF
25V
MATERIAL
R1104
1K
1/16W
C770
100nF
25V
MATERIAL
IC140
TEA6425D
ADDR:96h
C769
100nF
25V
MATERIAL
ONLY PAL
EXT3OUT-V
R1094
S1-Y
SDA-A
S1-C(EXT2-C)
SCL-A
EXT2OUT-V
R1146
S2-Y
S2-C
ONLY NT
COMB-C-OUT
COMB-Y-OUT
COMP1-Y(EXT3-RED(C))
R1066
EXT1-RED(C)
R1067
NT NOT USED
R1030
R1031
R1026
R1027
R1028
R1029
ONLY NT
SDA-A
SCL-A
R1019
R1018
ONLY PAL
MAIN-V-OUT
R1083
R1149
R995
MAIN-YOUT
MAIN-COUT
SUB-YOUT
SUB-COUT
SIDE-Y
SIDE-C
R1120
R1121
R1122
R1123
R1113
R1114
EXT3-MIXED-V-OUT
EXT2-MIXED-V-OUT
ONLY PAL
IC134
TEA6425D
ADDR:92h
C773
100nF
25V
MATERIAL
C774
100nF
25V
MATERIAL
SUB-MIXED-V-OUT
NTSC: SUB-VOUT
PAL:EXT3-VOUT
SUB-C-OUT
ONLY PAL
MAIN-Y(V)-OUT
MAIN-C-OUT
CAP(TTX)-Y-OUT
SUB-Y-OUT
ONLY PAL
MON-MIXED-V-OUT
8VB-6425
MAIN-Y(V)-OUT
R1082
Q142
KSC1623-G
R1124
R1175
R1158
R1157
R1159
R1160
R1115
MAIN-Y(V)
MAIN-C-OUT
R1084
R1125
Q143
KSC1623-G
R1116
MAIN-C
PAL:SUB-MIXED-V-OUT+EXT3-MIXED-V-OUT
NT:SUB-MIXED-V-OUT+SUB-V-OUT
SUB-MIXED-V-OUT
R1085
R1151
KSA1182
Q151
C409
470uF
16V
R1134
68
R670
1.5K
EXT3-VOUT
ONLY PAL
ONLY NT
SUB-V-OUT
R1086
ONLY PAL
EXT3-MIXED-V-OUT
R1095
R1126
R1176
Q144
KSC1623-G
R1069
SUB-Y(V)
ONLY NT
ONLY PAL
SUB-C-OUT
R1087
R1127
Q145
KSC1623-G
R1117
SUB-C
ONLY PAL
CAP(TTX)-Y-OUT
R1088
CAP(TTX)-V-OUT
R1089
Q146
KSC1623-G
R1128
R1177
R1118
CAPTION(TTX)-CVBS
MON-MIXED-V-OUT
R1090
PAL:MON-MIXED-V-OUT+EXT2-MIXED-V-OUT
NT:MON-MIXED-V-OUT+MON-V-OUT
KSA1182
Q147
C768
470uF
16V
R1135
68
R1108
1.5K
MON-VOUT(EXT2-VOUT)
ONLY NT
MON-V-OUT
R1150
R1129
ONLY PAL
EXT2-MIXED-V-OUT
R1145
SUB-V-OUT
R1092
R1130
SUB-Y-OUT
R1093
ONLY PAL
R980
R981
R982
R983
R1055
Q148
KSC1623-G
R1057
R1068
SUB-Y(V)
ONLY PAL
8VB-6425
MTNR-CVBS
C680
SDA-A
R1007
STNR-CVBS
C679
SCL-A
R1006
V1-IN(EXT2-V(Y))
R998
C675
V2-IN(EXT3-V(Y))
R999
C676
ONLY PAL
EXT1-V(Y)
R1000
C677
SIDE-V
R1001
C678
R1032
R1035
R1033
R1034
ONLY NT
NOT USED
C772
100nF
25V
MATERIAL
IC133
TEA6425D
ADDR:90h
C771
100nF
25V
MATERIAL
MAIN-V-OUT
SUB-V-OUT
CAP(TTX)-V-OUT
EXT2OUT-V
ONLY PAL
R1091
MON-V-OUT
ONLY NT
EXT3OUT-V
ONLY PAL
R1155
R1156
ONLY PAL
C767
470uF
16V
R1133
68
R1105
1.5K
EXT1-VOUT
R1002
KSA1182
Q136
R1119
4.7K
2004.2.16

6-1-5 3D Comb

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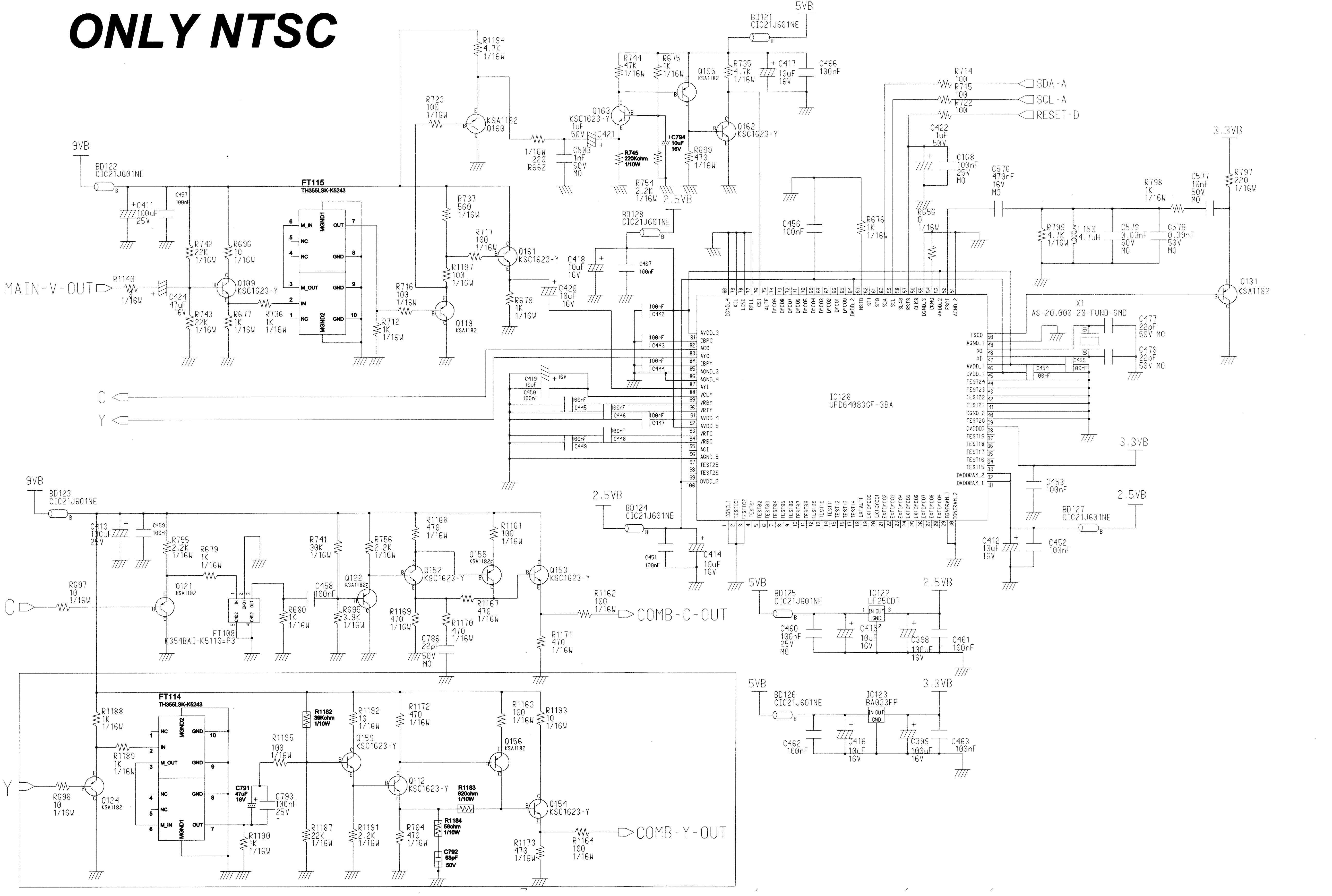
ONLY NTSC


5VB
BD121
CIC21J601NE
R1194
4.7K
1/16W
R744
47K
1/16W
R675
1K
1/16W
Q105
KSA1182
R735
4.7K
1/16W
C417
10uF
16V
C466
100nF
R714
100
R715
100
R722
100
SDA-A
SCL-A
RESET-D
R723
100
1/16W
KSA1182
Q160
Q163
KSC1623-Y
C421
1uF
50V
R662
220
1/16W
C503
1nF
50V
MO
R745
220Kohm
1/10W
C794
10uF
16V
R699
470
1/16W
Q162
KSC1623-Y
R754
2.2K
1/16W
C422
1uF
50V
C168
100nF
25V
MO
C576
470nF
16V
MO
3.3VB
R797
220
1/16W
C577
10nF
50V
MO
R798
1K
1/16W
9VB
BD122
CIC21J601NE
FT115
TH355LSK-K5243
C457
100nF
C411
100uF
25V
R737
560
1/16W
2.5VB
BD128
CIC21J601NE
C456
100nF
R676
1K
1/16W
R656
0
1/16W
R799
4.7K
1/16W
L150
4.7uH
C579
0.03nF
50V
MO
C578
0.39nF
50V
MO
R717
100
1/16W
Q161
KSC1623-Y
C418
10uF
16V
C467
100nF
R742
22K
1/16W
R696
10
1/16W
R1197
100
1/16W
MAIN-V-OUT
R1140
0
1/16W
C424
47uF
16V
Q109
KSC1623-Y
R716
100
1/16W
C420
10uF
16V
R678
1K
1/16W
Q131
KSA1182
X1
AS-20.000-20-FUND-SMD
C477
22pF
50V MO
C478
22pF
50V MO
R743
22K
1/16W
R677
1K
1/16W
R736
1K
1/16W
R712
1K
1/16W
Q119
KSA1182
C442
C443
C444
C445
C446
C447
C448
C449
100nF
C419
10uF
16V
C450
100nF
C
Y
IC128
UPD64083GF-3BA
C454
100nF
C455
100nF
3.3VB
C453
100nF
9VB
BD123
CIC21J601NE
2.5VB
BD124
CIC21J601NE
BD127
CIC21J601NE
2.5VB
C413
100uF
25V
C459
100nF
R755
2.2K
1/16W
R679
1K
1/16W
R741
30K
1/16W
R756
2.2K
1/16W
R1168
470
1/16W
R1161
100
1/16W
Q155
KSA1182
Q153
KSC1623-Y
C451
100nF
C414
10uF
16V
C412
10uF
16V
C452
100nF
R697
10
1/16W
Q121
KSA1182
C458
100nF
Q122
KSA1182
Q152
KSC1623-Y
R1167
470
1/16W
R1162
100
1/16W
COMB-C-OUT
5VB
BD125
CIC21J601NE
IC122
LF25CDT
2.5VB
C
R680
1K
1/16W
R695
3.9K
1/16W
R1169
470
1/16W
R1170
470
1/16W
C786
22pF
50V
MO
FT108
K354BAI-K5110=P3
R1171
470
1/16W
C460
100nF
25V
MO
C415
10uF
16V
C398
100uF
16V
C461
100nF
5VB
BD126
CIC21J601NE
IC123
BA033FP
3.3VB
FT114
TH355LSK-K5243
R1188
1K
1/16W
R1189
1K
1/16W
R1182
39Kohm
1/10W
R1195
100
1/16W
R1192
10
1/16W
Q159
KSC1623-Y
R1172
470
1/16W
R1163
100
1/16W
R1193
10
1/16W
Q156
KSA1182
C462
100nF
C416
10uF
16V
C399
100uF
16V
C463
100nF
Y
R698
10
1/16W
Q124
KSA1182
C791
47uF
16V
C793
100nF
25V
Q112
KSC1623-Y
R1183
820ohm
1/10W
Q154
KSC1623-Y
R1184
56ohm
1/10W
C792
68pF
50V
R1190
1K
1/16W
R1187
22K
1/16W
R1191
2.2K
1/16W
R704
470
1/16W
R1173
470
1/16W
R1164
100
1/16W
COMB-Y-OUT

6-1-6 Sound Processor Amp

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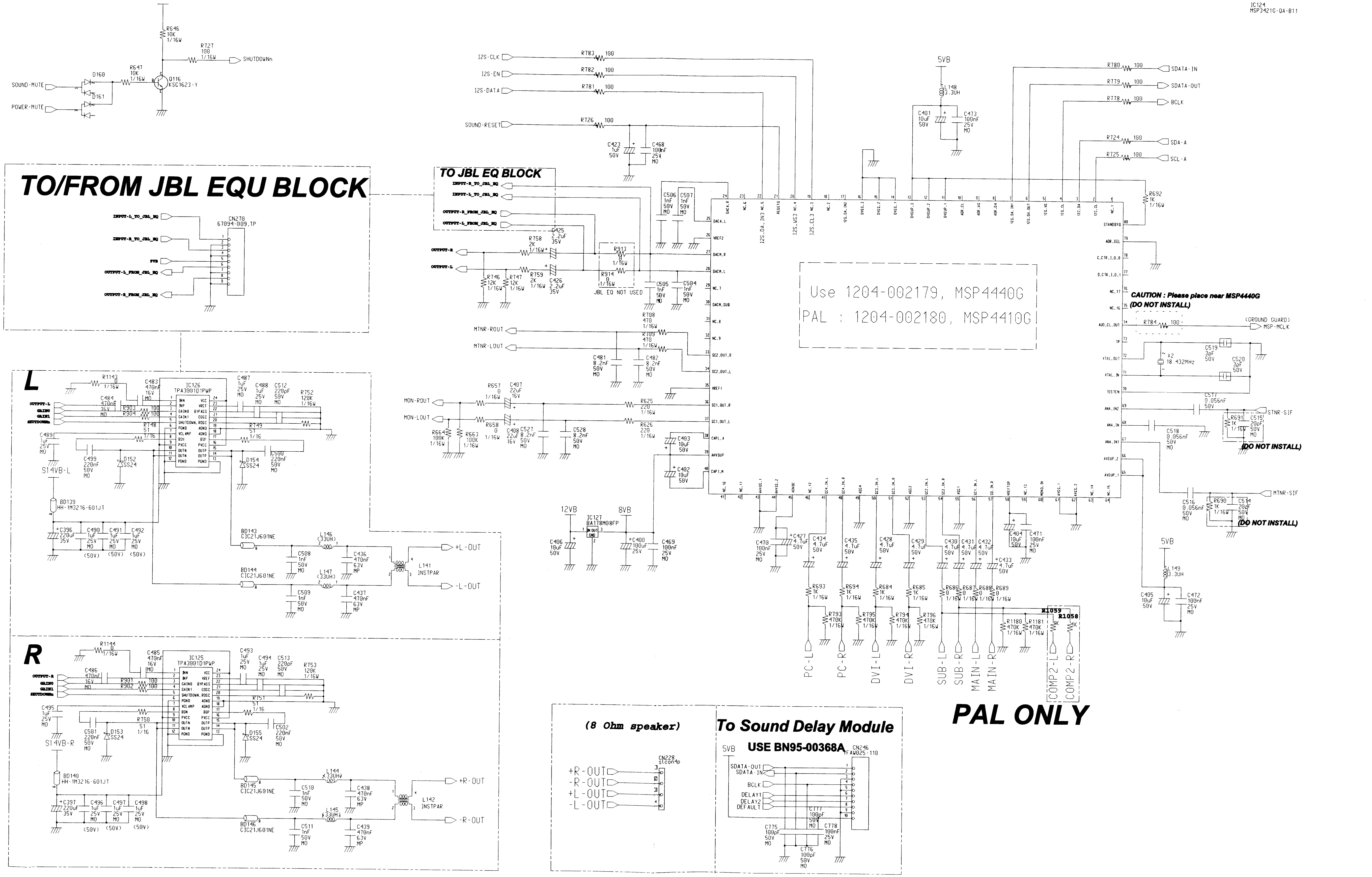
5VB
SOUND-MUTE
POWER-MUTE
SHUTDOWNn
Q116 KSC1623-Y
IC124 MSP3421G-QA-B11
I2S-CLK
I2S-EN
I2S-DATA
SOUND-RESET
TO/FROM JBL EQU BLOCK
CN270 67094-009,TP
TO JBL EQ BLOCK
OUTPUT-R
OUTPUT-L
JBL EQ NOT USED
Use 1204-002179, MSP4440G
PAL : 1204-002180, MSP4410G
SDATA-IN
SDATA-OUT
BCLK
SDA-A
SCL-A
CAUTION : Please place near MSP4440G
(DO NOT INSTALL)
(GROUND GUARD)
MSP-MCLK
X2 18.432MHz
STNR-SIF
MTNR-SIF
(DO NOT INSTALL)
MTNR-ROUT
MTNR-LOUT
MON-ROUT
MON-LOUT
L
R
IC126 TPA3001D1PWP
IC125 TPA3001D1PWP
S14VB-L
S14VB-R
+L-OUT
-L-OUT
+R-OUT
-R-OUT
L141 INSTPAR
L142 INSTPAR
12VB
8VB
IC127 BA178M08FP
PC-L
PC-R
DVI-L
DVI-R
SUB-L
SUB-R
MAIN-L
MAIN-R
COMP2-L
COMP2-R
PAL ONLY
(8 Ohm speaker)
CN229
+R-OUT
-R-OUT
+L-OUT
-L-OUT
To Sound Delay Module
USE BN95-00368A
CN246
5VB
SDATA-OUT
SDATA-IN
BCLK
DELAY1
DELAY2
DEFAULT

6-1-7 AV Switching_Audio

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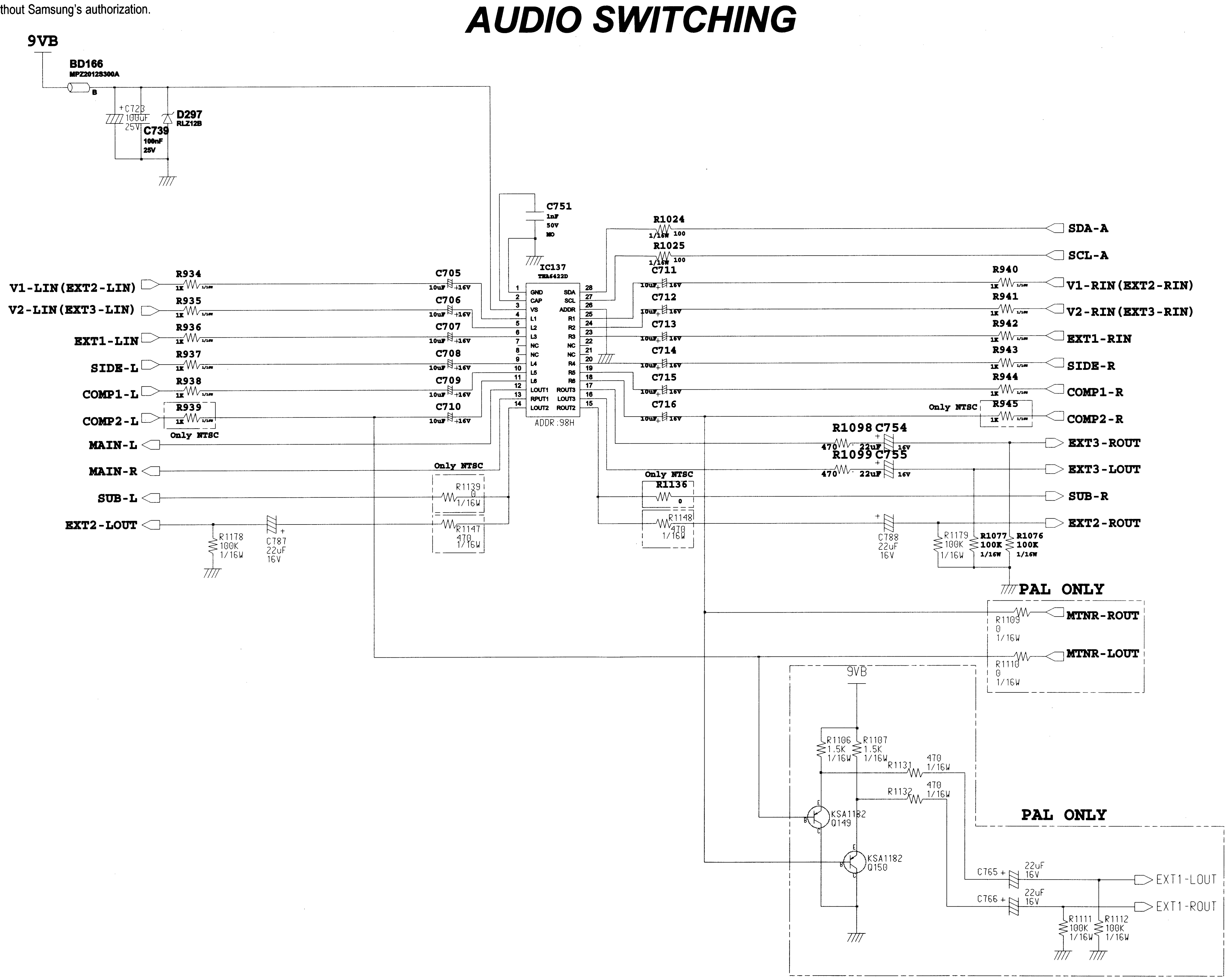
AUDIO SWITCHING
9VB
BD166
MPZ2012S300A
C723 100uF 25V
C739 100nF 25V
D297 RLZ12B
C751 1nF 50V
IC137 TDA6422D
GND CAP VS L1 L2 L3 NC NC L4 L5 L6 LOUT1 RPUT1 LOUT2
SDA SCL ADDR R1 R2 R3 NC NC R4 R5 R6 ROUT3 LOUT3 ROUT2
ADDR:98H
R1024 100 1/16W
R1025 100 1/16W
SDA-A
SCL-A
V1-LIN(EXT2-LIN)
V2-LIN(EXT3-LIN)
EXT1-LIN
SIDE-L
COMP1-L
COMP2-L
MAIN-L
MAIN-R
SUB-L
EXT2-LOUT
R934 R935 R936 R937 R938 R939 1K
C705 C706 C707 C708 C709 C710 10uF 16V
Only NTSC
C711 C712 C713 C714 C715 C716 10uF 16V
R940 R941 R942 R943 R944 R945 1K
V1-RIN(EXT2-RIN)
V2-RIN(EXT3-RIN)
EXT1-RIN
SIDE-R
COMP1-R
COMP2-R
R1098 470 C754 22uF 16V
R1099 470 C755 22uF 16V
EXT3-ROUT
EXT3-LOUT
SUB-R
EXT2-ROUT
R1139 0 1/16W
R1147 470 1/16W
R1136 0
R1148 470 1/16W
R1178 100K 1/16W
C787 22uF 16V
C788 22uF 16V
R1179 100K 1/16W
R1077 100K 1/16W
R1076 100K 1/16W
PAL ONLY
R1109 0 1/16W
MTNR-ROUT
R1110 0 1/16W
MTNR-LOUT
9VB
R1106 1.5K 1/16W
R1107 1.5K 1/16W
R1131 470 1/16W
R1132 470 1/16W
KSA1182 Q149
KSA1182 Q150
PAL ONLY
C765 22uF 16V
C766 22uF 16V
EXT1-LOUT
EXT1-ROUT
R1111 100K 1/16W
R1112 100K 1/16W

6-1-8 Expander & Signal connection

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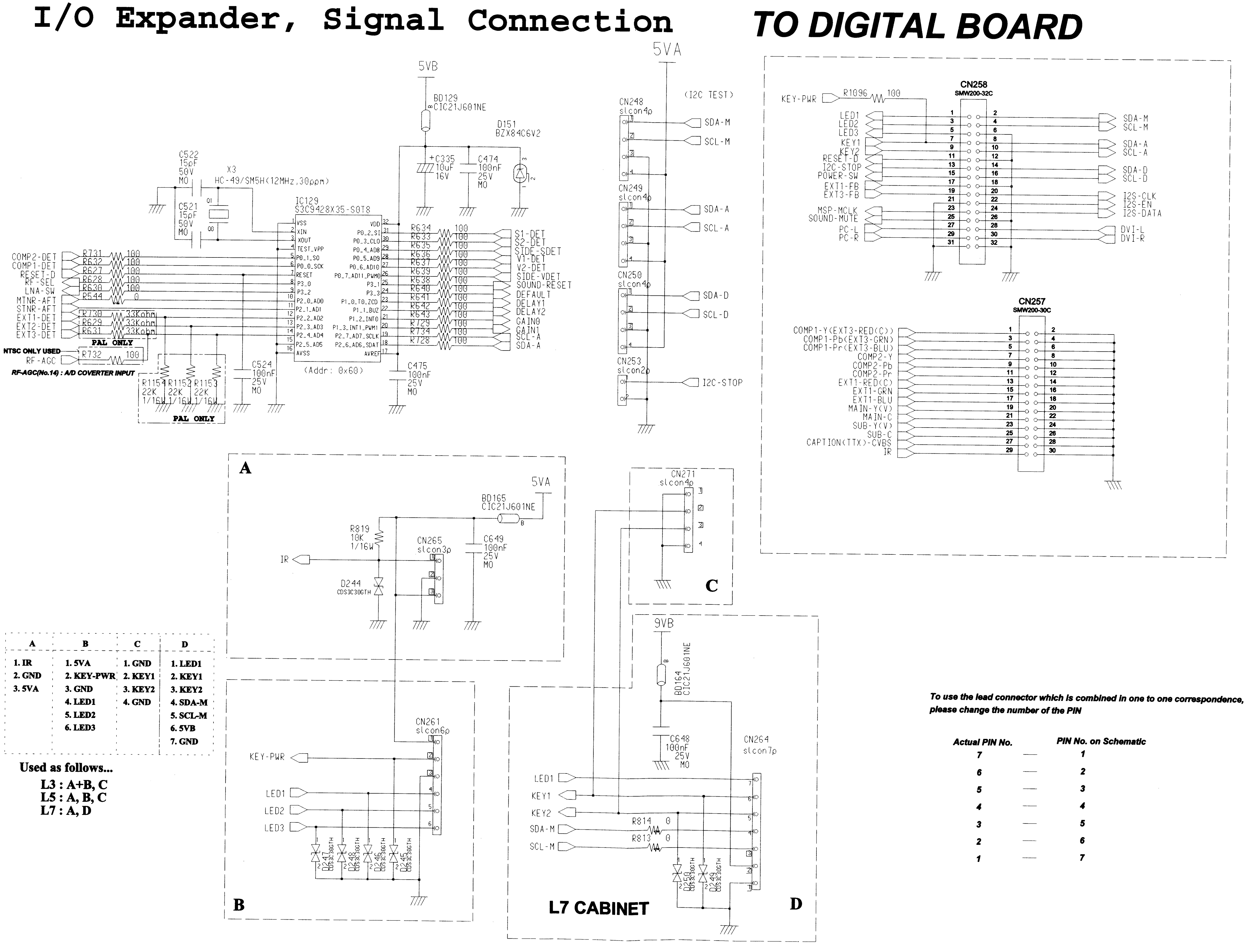
I/O Expander, Signal Connection


TO DIGITAL BOARD
5VB
BD129
CIC21J601NE
D151
BZX84C6V2
C522
15pF
50V
MO
X3
HC-49/SM5H(12MHz,30ppm)
C521
15pF
50V
MO
+C335
10uF
16V
C474
100nF
25V
MO
IC129
S3C9428X35-S0T8
VSS
XIN
XOUT
TEST_VPP
P0_1_SO
P0_0_SCK
RESET
P3_0
P3_2
P2_0_AD0
P2_1_AD1
P2_2_AD2
P2_3_AD3
P2_4_AD4
P2_5_AD5
AVSS
VDD
P0_2_SI
P0_3_CLO
P0_4_AD8
P0_5_AD9
P0_6_AD10
P0_7_AD11_PWM0
P3_1
P3_3
P1_0_T0_ZCD
P1_1_BUZ
P1_2_INT0
P1_3_INT1_PWM1
P2_7_AD7_SCLK
P2_6_AD6_SDAT
AVREF
(Addr: 0x60)
COMP2-DET
COMP1-DET
RESET-D
RF-SEL
LNA-SW
MTNR-AFT
STNR-AFT
EXT1-DET
EXT2-DET
EXT3-DET
R731 100
R632 100
R627 100
R628 100
R630 100
R544 0
R730 33Kohm
R629 33Kohm
R631 33Kohm
PAL ONLY
NTSC ONLY USED
RF-AGC
R732 100
RF-AGC(No.14) : A/D COVERTER INPUT
R1154 22K 1/16W
R1152 22K 1/16W
R1153 22K 1/16W
PAL ONLY
C524
100nF
25V
MO
C475
100nF
25V
MO
R634 100
R633 100
R635 100
R636 100
R637 100
R639 100
R638 100
R640 100
R641 100
R642 100
R643 100
R729 100
R734 100
R728 100
S1-DET
S2-DET
SIDE-SDET
V1-DET
V2-DET
SIDE-VDET
SOUND-RESET
DEFAULT
DELAY1
DELAY2
GAIN0
GAIN1
SCL-A
SDA-A
5VA
(I2C TEST)
CN248
slcon4p
SDA-M
SCL-M
CN249
slcon4p
SDA-A
SCL-A
CN250
slcon4p
SDA-D
SCL-D
CN253
slcon2p
I2C-STOP
CN258
SMW200-32C
KEY-PWR
R1096 100
LED1
LED2
LED3
KEY1
KEY2
RESET-D
I2C-STOP
POWER-SW
EXT1-FB
EXT3-FB
MSP-MCLK
SOUND-MUTE
PC-L
PC-R
SDA-M
SCL-M
SDA-A
SCL-A
SDA-D
SCL-D
I2S-CLK
I2S-EN
I2S-DATA
DVI-L
DVI-R
CN257
SMW200-30C
COMP1-Y(EXT3-RED(C))
COMP1-Pb(EXT3-GRN)
COMP1-Pr(EXT3-BLU)
COMP2-Y
COMP2-Pb
COMP2-Pr
EXT1-RED(C)
EXT1-GRN
EXT1-BLU
MAIN-Y(V)
MAIN-C
SUB-Y(V)
SUB-C
CAPTION(TTX)-CVBS
IR
A
5VA
BD165
CIC21J601NE
R819
10K
1/16W
IR
CN265
slcon3p
C649
100nF
25V
MO
D244
CDS3C30GTH
CN271
slcon4p
C
B
CN261
slcon6p
KEY-PWR
LED1
LED2
LED3
D247
D248
D246
D245
CDS3C30GTH
9VB
BD164
CIC21J601NE
C648
100nF
25V
MO
CN264
slcon7p
LED1
KEY1
KEY2
SDA-M
SCL-M
R814 0
R813 0
D250
D249
CDS3C30GTH
L7 CABINET
D

A	B	C	D
1. IR	1. 5VA	1. GND	1. LED1
2. GND	2. KEY-PWR	2. KEY1	2. KEY1
3. 5VA	3. GND	3. KEY2	3. KEY2
	4. LED1	4. GND	4. SDA-M
	5. LED2		5. SCL-M
	6. LED3		6. 5VB
			7. GND

Used as follows...

L3 : A+B, C
L5 : A, B, C
L7 : A, D

To use the lead connector which is combined in one to one correspondence, please change the number of the PIN

Actual PIN No.		PIN No. on Schematic
7	—	1
6	—	2
5	—	3
4	—	4
3	—	5
2	—	6
1	—	7

6-2 DIGITAL

6-2-1 SIG_INPUT

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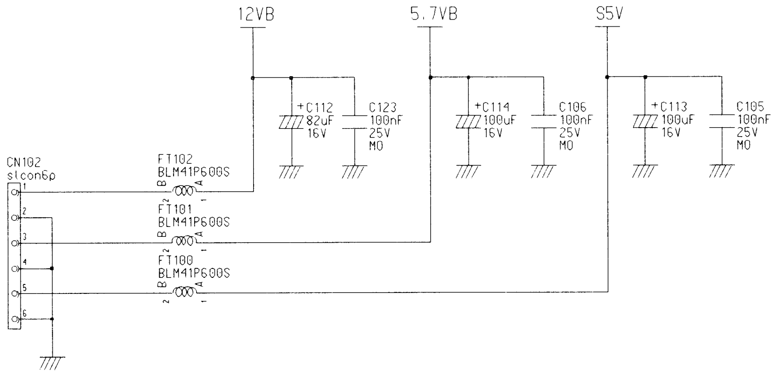
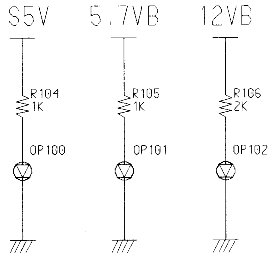
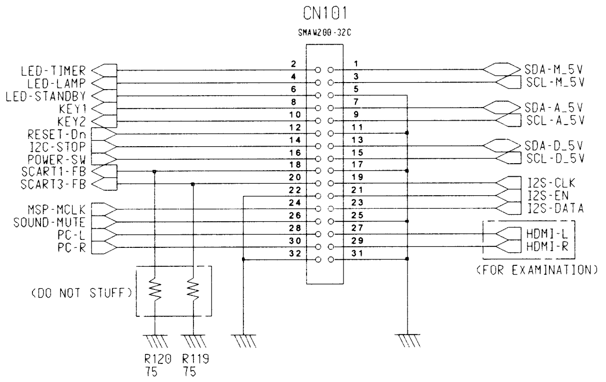
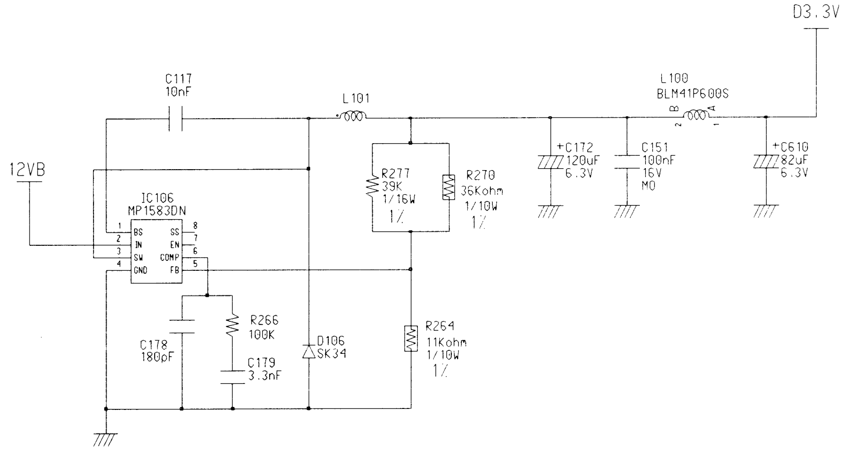
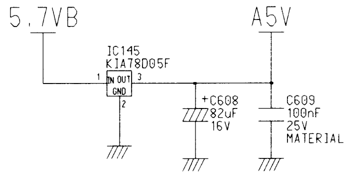
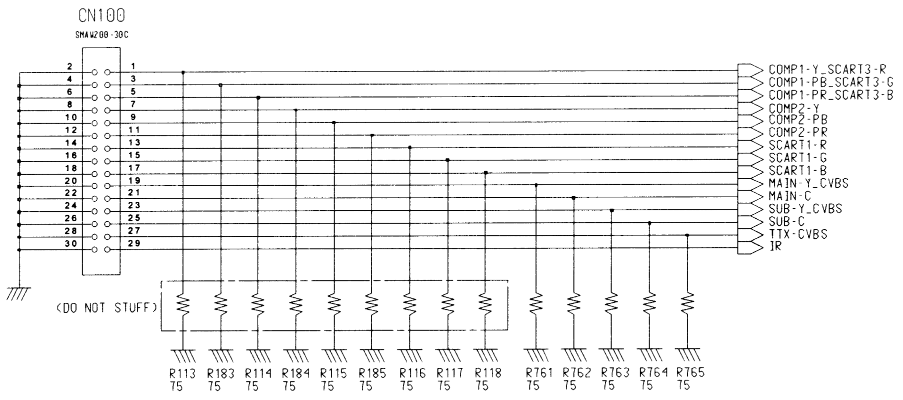

12VB
5.7VB
S5V
+C112
82uF
16V
C123
100nF
25V
MO
+C114
100uF
16V
C106
100nF
25V
MO
+C113
100uF
16V
C105
100nF
25V
MO
CN102
slcon6p
FT102
BLM41P600S
FT101
BLM41P600S
FT100
BLM41P600S
B
A
1
2
3
4
5
6


S5V
5.7VB
12VB
R104
1K
R105
1K
R106
2K
OP100
OP101
OP102


CN101
SMAW200-32C
LED-TIMER
LED-LAMP
LED-STANDBY
KEY1
KEY2
RESET-Dn
I2C-STOP
POWER-SW
SCART1-FB
SCART3-FB
MSP-MCLK
SOUND-MUTE
PC-L
PC-R
SDA-M_5V
SCL-M_5V
SDA-A_5V
SCL-A_5V
SDA-D_5V
SCL-D_5V
I2S-CLK
I2S-EN
I2S-DATA
HDMI-L
HDMI-R
(FOR EXAMINATION)
(DO NOT STUFF)
R120
75
R119
75


D3.3V
C117
10nF
L101
L100
BLM41P600S
12VB
IC106
MP1583DN
BS
IN
SW
GND
SS
EN
COMP
FB
R277
39K
1/16W
1%
R270
36Kohm
1/10W
1%
+C172
120uF
6.3V
C151
100nF
16V
MO
+C610
82uF
6.3V
C178
180pF
R266
100K
C179
3.3nF
D106
SK34
R264
11Kohm
1/10W
1%


5.7VB
A5V
IC145
KIA78D05F
IN OUT
GND
+C608
82uF
16V
C609
100nF
25V
MATERIAL


CN100
SMAW200-30C
COMP1-Y_SCART3-R
COMP1-PB_SCART3-G
COMP1-PR_SCART3-B
COMP2-Y
COMP2-PB
COMP2-PR
SCART1-R
SCART1-G
SCART1-B
MAIN-Y_CVBS
MAIN-C
SUB-Y_CVBS
SUB-C
TTX-CVBS
IR
(DO NOT STUFF)
R113
75
R183
75
R114
75
R184
75
R115
75
R185
75
R116
75
R117
75
R118
75
R761
75
R762
75
R763
75
R764
75
R765
75

6-2-2 VPC3230_MAIN

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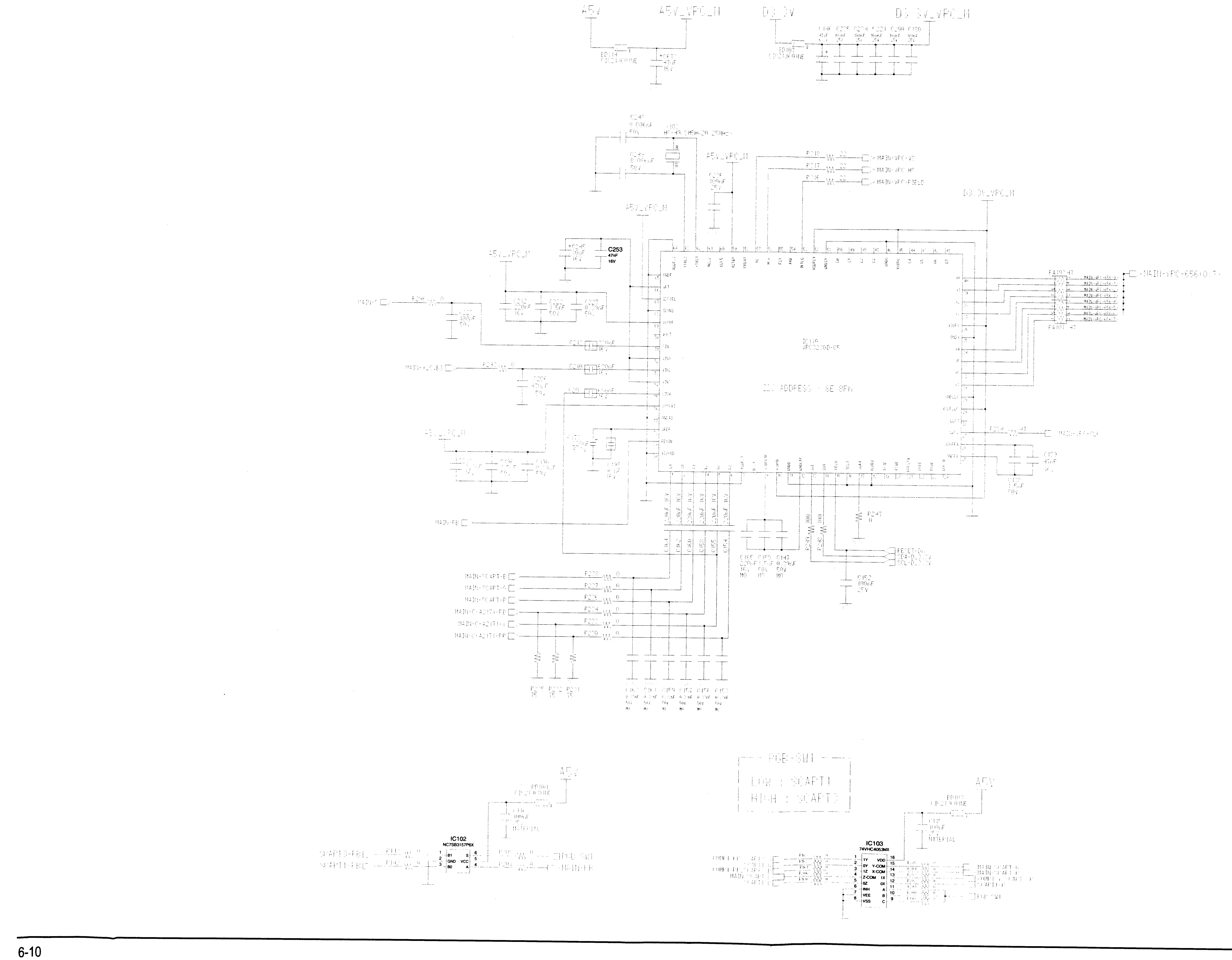
A5V
A5V_VPC_H
D3.3V
D3.3V_VPC_H
A5V_VPC_H
D3.3V_VPC_H
C253
47nF
16V
IC110
VPC3230D-C5
I2C ADDRESS : 8E 8FH
A5V
IC102
NC7SB3157P6X
RGB-SW1
LOW : SCART1
HIGH : SCART3
A5V
IC103
74VHC4053MX
1Y
0Y
1Z
Z-COM
0Z
INH
VEE
VSS
VDD
Y-COM
X-COM
1X
0X
A
B
C

6-2-3 FLI2310_MAIN

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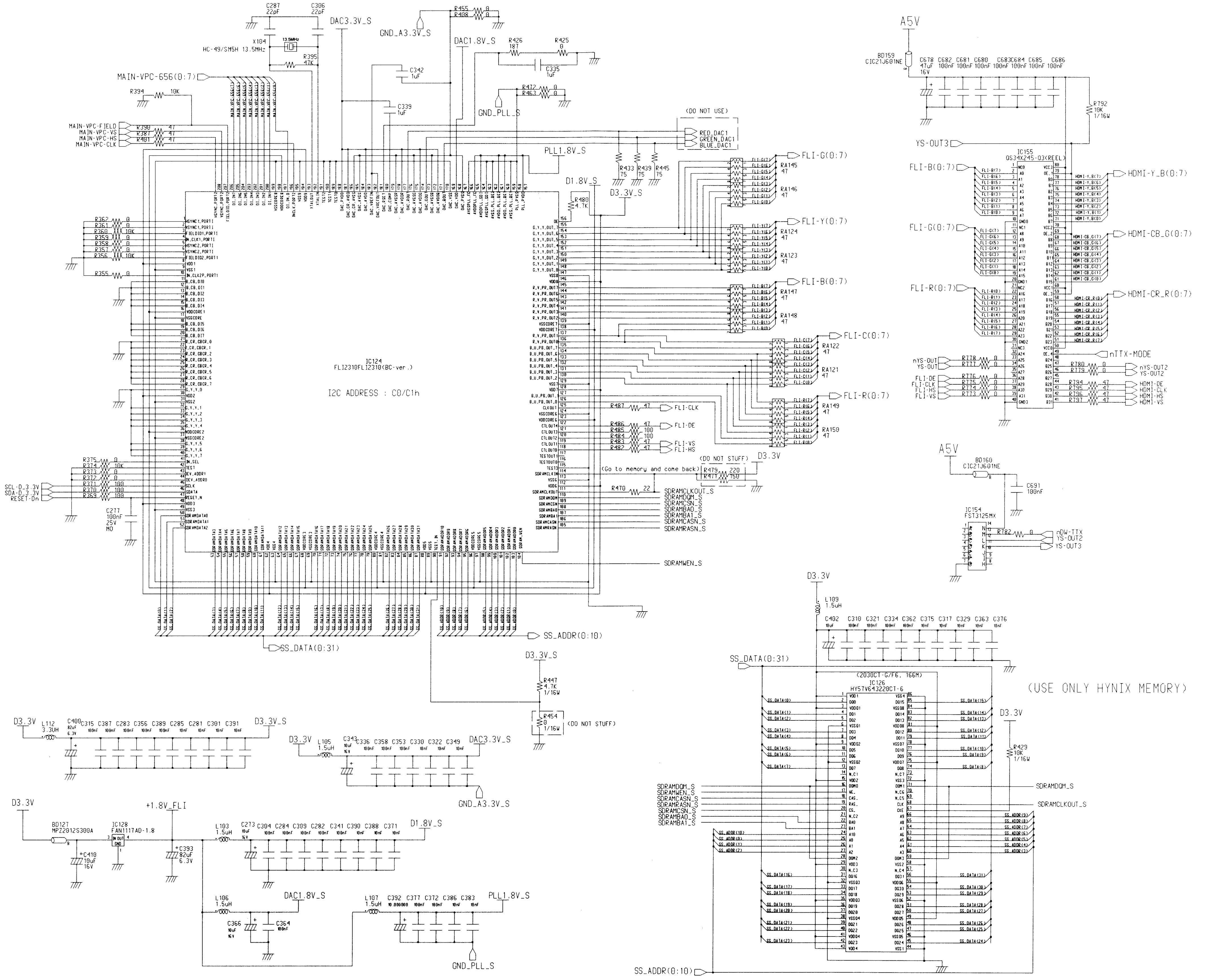
C287 22pF
C306 22pF
DAC3.3V_S
GND_A3.3V_S
R455
R408
X104
HC-49/SMSH 13.5MHz
13.5MHz
R395 47K
DAC1.8V_S
R426 187
R425 0
C335 1uF
C342 1uF
C339 1uF
R472
R463
GND_PLL_S
MAIN-VPC-656(0:7)
R394 10K
MAIN-VPC-FIELD
MAIN-VPC-VS
MAIN-VPC-HS
MAIN-VPC-CLK
R390 47
R381 47
R401 47
(DO NOT USE)
RED_DAC1
GREEN_DAC1
BLUE_DAC1
PLL1.8V_S
R433 75
R439 75
R445 75
D1.8V_S
R480 4.7K
D3.3V_S
R362
R361
R360 10K
R359
R358
R357
R356 10K
R355
IC124
FLI2310FLI2310(BC-ver.)
I2C ADDRESS : C0/C1h
R375
R374 10K
R373
R372
R371 100
R370 100
R369 100
SCL-D_3.3V
SDA-D_3.3V
RESET-On
C277 100nF 25V MO
FLI-G(0:7)
RA145 47
RA146 47
FLI-Y(0:7)
RA124 47
RA123 47
FLI-B(0:7)
RA147 47
RA148 47
FLI-C(0:7)
RA122 47
RA121 47
FLI-R(0:7)
RA149 47
RA150 47
R487 47
FLI-CLK
R486 47
R485 100
R484 100
R483 47
R482 47
FLI-DE
FLI-VS
FLI-HS
(DO NOT STUFF)
D3.3V
(Go to memory and come back)
R479 220
R477 150
R470 22
SDRAMCLKOUT_S
SDRAMDQM_S
SDRAMCSN_S
SDRAMBA0_S
SDRAMBA1_S
SDRAMCASN_S
SDRAMRASN_S
SDRAMWEN_S
SS_ADDR(0:10)
SS_DATA(0:31)
R447 4.7K 1/16W
R454 0 1/16W
(DO NOT STUFF)
A5V
BD159 CIC21J601NE
C678 47uF 16V
C682 100nF
C681 100nF
C680 100nF
C683 100nF
C684 100nF
C685 100nF
C686 100nF
R792 10K 1/16W
YS-OUT3
IC155
QS34X245-Q3(REEL)
FLI-B(0:7)
FLI-G(0:7)
FLI-R(0:7)
HDMI-Y_B(0:7)
HDMI-CB_G(0:7)
HDMI-CR_R(0:7)
nTTX-MODE
nYS-OUT
YS-OUT
R778 0
R777 0
R780 0
R779 0
nYS-OUT2
YS-OUT2
FLI-DE
FLI-CLK
FLI-HS
FLI-VS
R776 0
R775 0
R774 0
R773 0
R794 47
R795 47
R796 47
R797 47
HDMI-DE
HDMI-CLK
HDMI-HS
HDMI-VS
A5V
BD160 CIC21J601NE
C691 100nF
IC154
FST3125MX
R782 0
nDW-TTX
YS-OUT2
YS-OUT3
D3.3V
L109 1.5uH
C402 C310 C321 C334 C362 C375 C317 C329 C363 C376
SS_DATA(0:31)
(2030CT-G/F6, 166M)
IC126
HY57V643220CT-6
(USE ONLY HYNIX MEMORY)
D3.3V
R429 10K 1/16W
SDRAMDQM_S
SDRAMCLKOUT_S
SDRAMDQM_S
SDRAMWEN_S
SDRAMCASN_S
SDRAMRASN_S
SDRAMCSN_S
SDRAMBA0_S
SDRAMBA1_S
SS_ADDR(0:10)
D3.3V
L112 3.3UH
C400 82uF 6.3V
C315 C387 C283 C356 C389 C285 C281 C301 C391
D3.3V_S
D3.3V
L105 1.5uH
C343 C336 C358 C353 C330 C322 C349
DAC3.3V_S
GND_A3.3V_S
D3.3V
BD127 MPZ2012S300A
IC128 FAN1117AD-1.8
+1.8V_FLI
C410 10uF 16V
C393 82uF 6.3V
L103 1.5uH
C273 C304 C284 C309 C282 C341 C390 C388 C371
D1.8V_S
L106 1.5uH
DAC1.8V_S
C366
C364
L107 1.5uH
C392 C377 C312 C386 C383
PLL1.8V_S
GND_PLL_S

6-2-4 VPC3230_SUB

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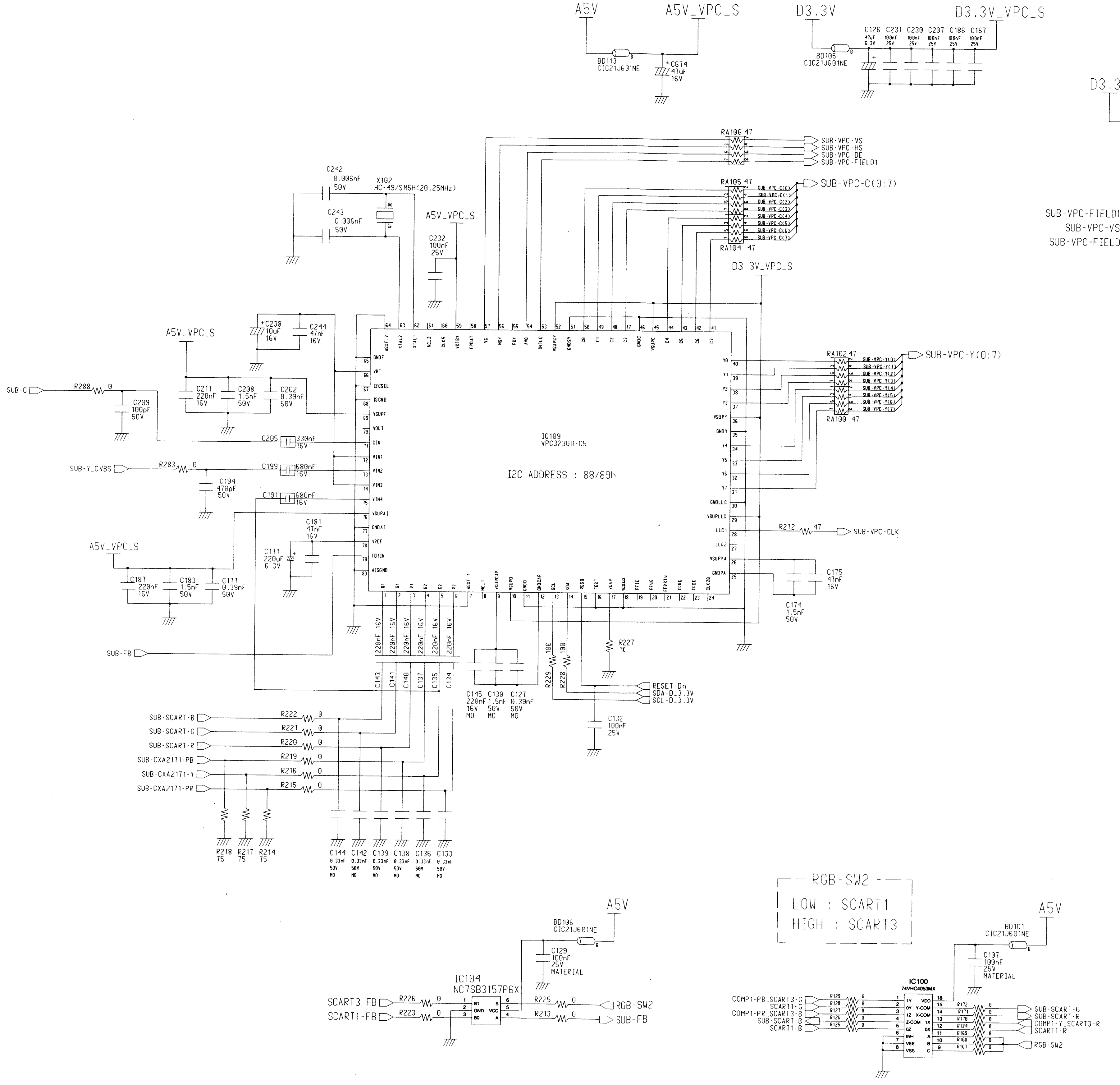
A5V
A5V_VPC_S
D3.3V
D3.3V_VPC_S
BD113 CIC21J601NE
C674 47uF 16V
BD105 CIC21J601NE
C126 C231 C230 C207 C186 C167
BD157 CIC21J601NE
C675 10uF 16V
C677 100nF 25V
IC156 74LCX74MX
SUB-VPC-FIELD1
SUB-VPC-VS
SUB-VPC-FIELD
RA106 47
SUB-VPC-VS
SUB-VPC-HS
SUB-VPC-DE
SUB-VPC-FIELD1
RA105 47
SUB-VPC-C(0:7)
RA104 47
C242 0.006nF 50V
X102 HC-49/SM5H(20.25MHz)
C243 0.006nF 50V
C232 100nF 25V
C238 10uF 16V
C244 47nF 16V
RA102 47
SUB-VPC-Y(0:7)
RA100 47
SUB-C
R288 0
C209 100pF 50V
C211 220nF 16V
C208 1.5nF 50V
C202 0.39nF 50V
C205 330nF 16V
SUB-Y_CVBS
R283 0
C199 680nF 16V
C194 470pF 50V
C191 680nF 16V
C181 47nF 16V
C171 220uF 6.3V
IC109 VPC3230D-C5
I2C ADDRESS : 88/89h
R272 47
SUB-VPC-CLK
C175 47nF 16V
C174 1.5nF 50V
C187 220nF 16V
C183 1.5nF 50V
C177 0.39nF 50V
SUB-FB
C143 C141 C140 C137 C135 C134
C145 C130 C127 220nF 1.5nF 0.39nF 16V 50V 50V
R229 100
R228 100
R227 1K
RESET-Dn
SDA-D_3.3V
SCL-D_3.3V
C132 100nF 25V
SUB-SCART-B
SUB-SCART-G
SUB-SCART-R
SUB-CXA2171-PB
SUB-CXA2171-Y
SUB-CXA2171-PR
R222 0
R221 0
R220 0
R219 0
R216 0
R215 0
R218 R217 R214 75 75 75
C144 C142 C139 C138 C136 C133 0.33nF 50V
RGB-SW2
LOW : SCART1
HIGH : SCART3
BD106 CIC21J601NE
C129 100nF 25V MATERIAL
IC104 NC7SB3157P6X
SCART3-FB
SCART1-FB
R226 0
R223 0
R225 0
R213 0
RGB-SW2
SUB-FB
BD101 CIC21J601NE
C107 100nF 25V MATERIAL
IC100 74VHC4053MX
COMP1-PB, SCART3-G
SCART1-G
COMP1-PR, SCART3-B
SUB-SCART-B
SCART1-B
SUB-SCART-G
SUB-SCART-R
COMP1-Y, SCART3-R
SCART1-R
RGB-SW2

6-2-5 CXA2171

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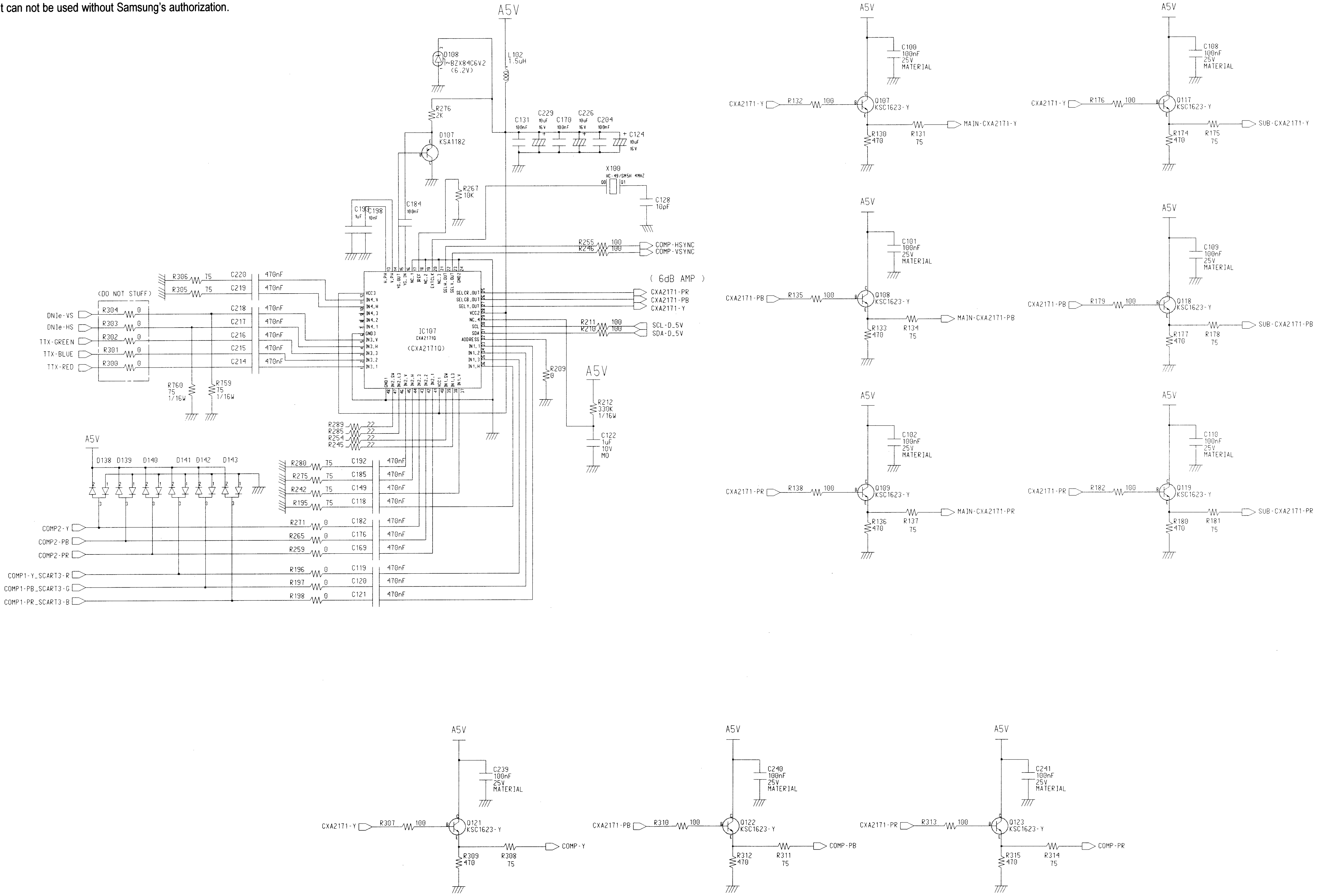
A5V
D108
BZX84C6V2
(6.2V)
L102
1.5uH
R276
2K
D107
KSA1182
C131 100nF
C229 10uF 16V
C170 100nF
C226 10uF 16V
C204 100nF
C124 10uF 16V
X100
HC-49/SM5H 4MHZ
C128
10pF
R267
10K
C193 1uF
C198 10nF
C184 100nF
R255 100
R246 100
COMP-HSYNC
COMP-VSYNC
(6dB AMP)
CXA2171-PR
CXA2171-PB
CXA2171-Y
R211 100
R210 100
SCL-D_5V
SDA-D_5V
R209
0
R212
330K
1/16W
C122
1uF
10V
MO
IC107
CXA2171Q
(CXA2171Q)
H_PH
V_PH
YG_OUT
YG_IN
NC_1
IREF
NC_2
EXTCLK
NC_3
SELH_OUT
SELV_OUT
GND2
VCC3
IN4_V
IN4_H
IN4_3
IN4_2
IN4_1
GND3
IN3_V
IN3_H
IN3_3
IN3_2
IN3_1
SELCR_OUT
SELCB_OUT
SELY_OUT
VCC2
NC_4
SCL
SDA
ADDRESS
IN1_1
IN1_2
IN1_3
IN1_H
GND1
IN2_SW
IN2_L3
IN2_V
IN2_H
IN2_3
IN2_2
IN2_1
VCC1
IN1_SW
IN1_L3
IN1_V
R306 75
C220 470nF
R305 75
C219 470nF
(DO NOT STUFF)
DNIe-VS
DNIe-HS
TTX-GREEN
TTX-BLUE
TTX-RED
R304 0
R303 0
R302 0
R301 0
R300 0
C218 470nF
C217 470nF
C216 470nF
C215 470nF
C214 470nF
R760
75
1/16W
R759
75
1/16W
R289 22
R285 22
R254 22
R245 22
A5V
D138 D139 D140 D141 D142 D143
R280 75
C192 470nF
R275 75
C185 470nF
R242 75
C149 470nF
R195 75
C118 470nF
COMP2-Y
COMP2-PB
COMP2-PR
R271 0
C182 470nF
R265 0
C176 470nF
R259 0
C169 470nF
COMP1-Y_SCART3-R
COMP1-PB_SCART3-G
COMP1-PR_SCART3-B
R196 0
C119 470nF
R197 0
C120 470nF
R198 0
C121 470nF
A5V
C100
100nF
25V
MATERIAL
CXA2171-Y
R132 100
Q107
KSC1623-Y
R130
470
R131
75
MAIN-CXA2171-Y
A5V
C101
100nF
25V
MATERIAL
CXA2171-PB
R135 100
Q108
KSC1623-Y
R133
470
R134
75
MAIN-CXA2171-PB
A5V
C102
100nF
25V
MATERIAL
CXA2171-PR
R138 100
Q109
KSC1623-Y
R136
470
R137
75
MAIN-CXA2171-PR
A5V
C108
100nF
25V
MATERIAL
CXA2171-Y
R176 100
Q117
KSC1623-Y
R174
470
R175
75
SUB-CXA2171-Y
A5V
C109
100nF
25V
MATERIAL
CXA2171-PB
R179 100
Q118
KSC1623-Y
R177
470
R178
75
SUB-CXA2171-PB
A5V
C110
100nF
25V
MATERIAL
CXA2171-PR
R182 100
Q119
KSC1623-Y
R180
470
R181
75
SUB-CXA2171-PR
A5V
C239
100nF
25V
MATERIAL
CXA2171-Y
R307 100
Q121
KSC1623-Y
R309
470
R308
75
COMP-Y
A5V
C240
100nF
25V
MATERIAL
CXA2171-PB
R310 100
Q122
KSC1623-Y
R312
470
R311
75
COMP-PB
A5V
C241
100nF
25V
MATERIAL
CXA2171-PR
R313 100
Q123
KSC1623-Y
R315
470
R314
75
COMP-PR

6-2-6 MST9883

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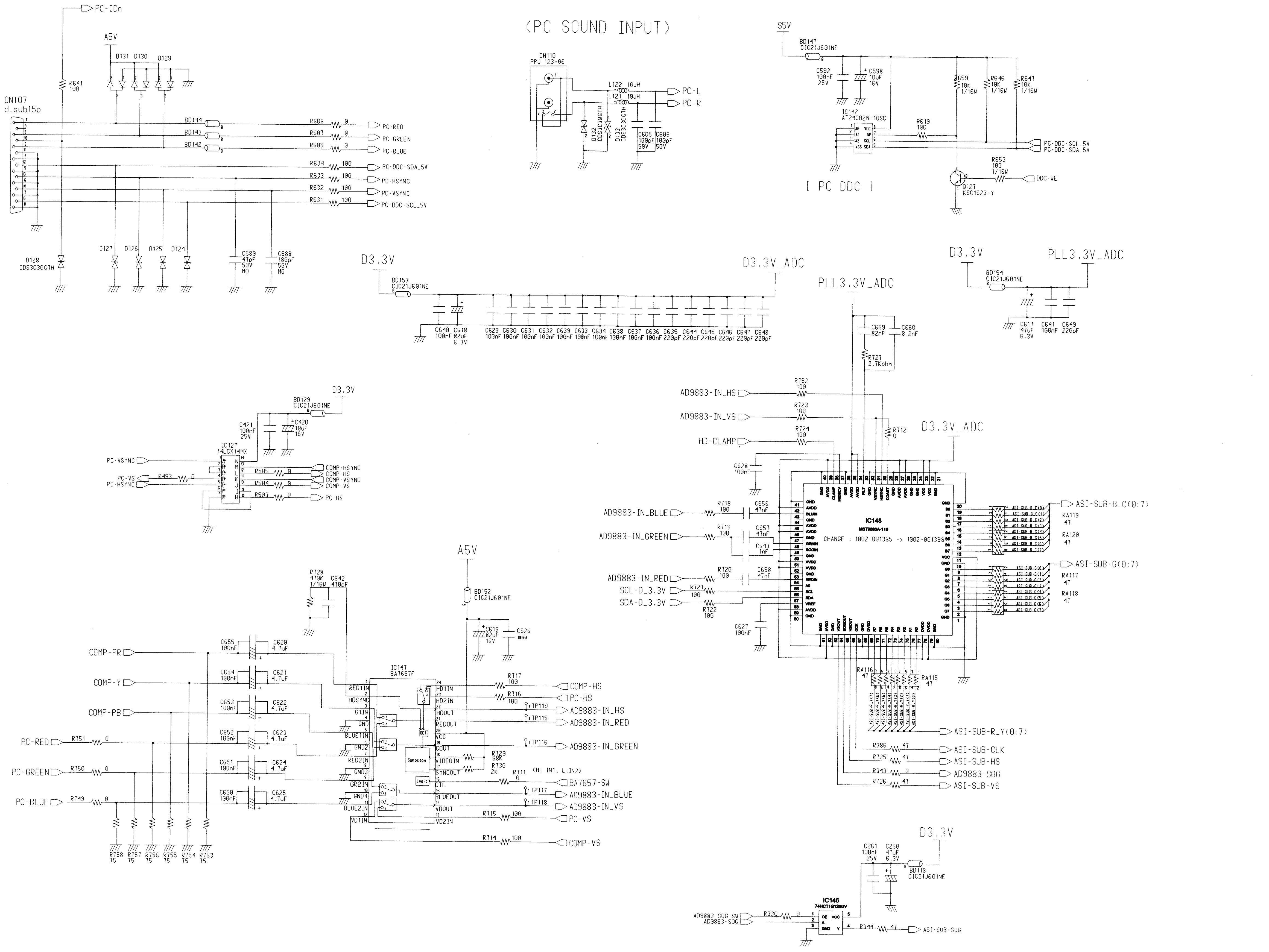
PC-IDn
A5V
D131 D130 D129
R641 100
CN107 d_sub15p
BD144
BD143
BD142
R606 0
R607 0
R609 0
PC-RED
PC-GREEN
PC-BLUE
R634 100
R633 100
R632 100
R631 100
PC-DDC-SDA_5V
PC-HSYNC
PC-VSYNC
PC-DDC-SCL_5V
D128 CDS3C30GTH
D127 D126 D125 D124
C589 47pF 50V MO
C588 180pF 50V MO
(PC SOUND INPUT)
CN110 PPJ 123-06
L122 10uH
L121 10uH
PC-L
PC-R
D132 CDS3C30GTH
D133 CDS3C30GTH
C605 180pF 50V
C606 180pF 50V
S5V
BD147 CIC21J601NE
C592 100nF 25V
C598 10uF 16V
R659 10K 1/16W
R646 10K 1/16W
R647 10K 1/16W
IC142 AT24C02N-10SC
R619 100
PC-DDC-SCL_5V
PC-DDC-SDA_5V
R653 100 1/16W
DDC-WE
Q127 KSC1623-Y
[PC DDC]
D3.3V
BD153 CIC21J601NE
D3.3V_ADC
C640 100nF
C618 82uF 6.3V
C629 C630 C631 C632 C639 C633 C634 C638 C637 C636 C635 C644 C645 C646 C647 C648
PLL3.3V_ADC
BD154 CIC21J601NE
C617 47uF 6.3V
C641 100nF
C649 220pF
C659 82nF
C660 8.2nF
R727 2.7Kohm
D3.3V
BD129 CIC21J601NE
C421 100nF 25V
C420 10uF 16V
IC127 74LCX14MX
PC-VSYNC
PC-VS
PC-HSYNC
R493 0
R505 0
R504 0
R503 0
COMP-HSYNC
COMP-HS
COMP-VSYNC
COMP-VS
PC-HS
AD9883-IN_HS
AD9883-IN_VS
HD-CLAMP
R752 100
R723 100
R724 100
R712 0
D3.3V_ADC
C628 100nF
AD9883-IN_BLUE
AD9883-IN_GREEN
AD9883-IN_RED
SCL-D_3.3V
SDA-D_3.3V
R718 100
R719 100
R720 100
R721 100
R722 100
C656 47nF
C657 47nF
C643 1nF
C658 47nF
C627 100nF
IC148
MST9883A-110
CHANGE : 1002-001365 -> 1002-001398
ASI-SUB-B_C(0:7)
RA119 47
RA120 47
ASI-SUB-G(0:7)
RA117 47
RA118 47
RA116 47
RA115 47
ASI-SUB-R_Y(0:7)
R386 47
R725 47
R343 0
R726 47
ASI-SUB-CLK
ASI-SUB-HS
AD9883-SOG
ASI-SUB-VS
A5V
R728 47K 1/16W
C642 470pF
BD152 CIC21J601NE
C619 82uF 16V
C626 100nF
COMP-PR
COMP-Y
COMP-PB
PC-RED
PC-GREEN
PC-BLUE
R751 0
R750 0
R749 0
C655 100nF
C620 4.7uF
C654 100nF
C621 4.7uF
C653 100nF
C622 4.7uF
C652 100nF
C623 4.7uF
C651 100nF
C624 4.7uF
C650 100nF
C625 4.7uF
IC147 BA7657F
RED1IN
HDSYNC
G1IN
GND
BLUE1IN
GND2
RED2IN
GND3
GR2IN
GND4
BLUE2IN
VD1IN
HD1IN
HD2IN
HDOUT
REDOUT
VCC
GOUT
VIDEOIN
SYNCOUT
CTL
BLUEOUT
VDOUT
VD2IN
R717 100
R716 100
COMP-HS
PC-HS
TP119
TP115
AD9883-IN_HS
AD9883-IN_RED
TP116
AD9883-IN_GREEN
R729 68K
R730 2K
R711 0
(H: IN1, L:IN2)
BA7657-SW
TP117
TP118
AD9883-IN_BLUE
AD9883-IN_VS
R715 100
PC-VS
R714 100
COMP-VS
R758 R757 R756 R755 R754 R753
75 75 75 75 75 75
D3.3V
C261 100nF 25V
C258 47uF 6.3V
BD118 CIC21J601NE
IC146 74HCT1G125GV
AD9883-SOG-SW
AD9883-SOG
R330 0
R344 47
ASI-SUB-SOG

6-2-7 HDMI

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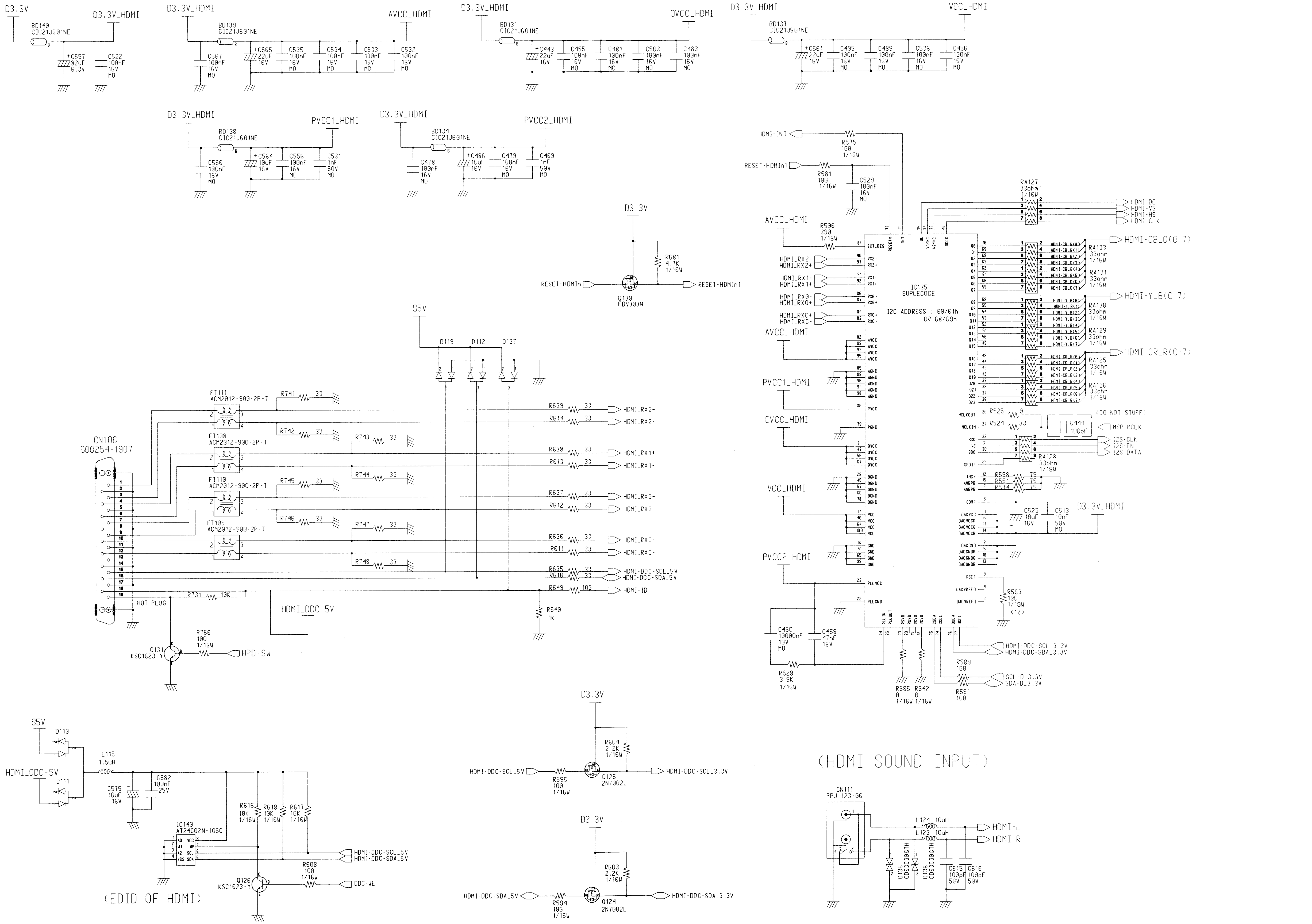
D3.3V
D3.3V_HDMI
BD140
CIC21J601NE
C557 82uF 6.3V
C522 100nF 16V MO
AVCC_HDMI
BD139
C567 100nF 16V MO
C565 22uF 16V
C535 100nF 16V MO
C534 100nF 16V MO
C533 100nF 16V MO
C532 100nF 16V MO
OVCC_HDMI
BD131
C443 22uF 16V
C455 100nF 16V MO
C481 100nF 16V MO
C503 100nF 16V MO
C483 100nF 16V MO
VCC_HDMI
BD137
C561 22uF 16V
C495 100nF 16V MO
C489 100nF 16V MO
C536 100nF 16V MO
C456 100nF 16V MO
PVCC1_HDMI
BD138
C566 100nF 16V MO
C564 10uF 16V
C556 100nF 16V MO
C531 1nF 50V MO
PVCC2_HDMI
BD134
C478 100nF 16V MO
C486 10uF 16V
C479 100nF 16V MO
C469 1nF 50V MO
HDMI-INT
R575 100 1/16W
RESET-HDMIn1
R581 100 1/16W
C529 100nF 16V MO
RA127 33ohm 1/16W
HDMI-DE
HDMI-VS
HDMI-HS
HDMI-CLK
HDMI-CB_G(0:7)
RA133 33ohm 1/16W
RA131 33ohm 1/16W
HDMI-Y_B(0:7)
RA130 33ohm 1/16W
RA129 33ohm 1/16W
HDMI-CR_R(0:7)
RA125 33ohm 1/16W
RA126 33ohm 1/16W
R596 390 1/16W
HDMI_RX2-
HDMI_RX2+
HDMI_RX1-
HDMI_RX1+
HDMI_RX0-
HDMI_RX0+
HDMI_RXC+
HDMI_RXC-
IC135
SUPLECODE
I2C ADDRESS : 60/61h OR 68/69h
D3.3V
R681 4.7K 1/16W
RESET-HDMIn
RESET-HDMIn1
Q130
FDV303N
S5V
D119
D112
D137
FT111 ACM2012-900-2P-T
FT108 ACM2012-900-2P-T
FT110 ACM2012-900-2P-T
FT109 ACM2012-900-2P-T
R741 33
R742 33
R743 33
R744 33
R745 33
R746 33
R747 33
R748 33
CN106
500254-1907
R639 33
HDMI_RX2+
R614 33
HDMI_RX2-
R638 33
HDMI_RX1+
R613 33
HDMI_RX1-
R637 33
HDMI_RX0+
R612 33
HDMI_RX0-
R636 33
HDMI_RXC+
R611 33
HDMI_RXC-
R635 33
HDMI-DDC-SCL_5V
R610 33
HDMI-DDC-SDA_5V
R649 100
HDMI-ID
R640 1K
HOT PLUG
R731 10K
HDMI_DDC-5V
R766 100 1/16W
Q131 KSC1623-Y
HPD-SW
R525 0
(DO NOT STUFF)
R524 33
C444 100pF
MSP-MCLK
I2S-CLK
I2S-EN
I2S-DATA
RA128 33ohm 1/16W
R558 75
R551 75
R574 75
C523 10uF 16V
C513 10nF 50V MO
D3.3V_HDMI
R563 100 1/10W (1%)
C450 10000nF 10V MO
C458 47nF 16V
R528 3.9K 1/16W
R585 0 1/16W
R542 0 1/16W
HDMI-DDC-SCL_3.3V
HDMI-DDC-SDA_3.3V
R589 100
SCL-D_3.3V
SDA-D_3.3V
R591 100
S5V
D118
HDMI_DDC-5V
D111
L115 1.5uH
C575 10uF 16V
C582 100nF 25V
R616 10K 1/16W
R618 10K 1/16W
R617 10K 1/16W
IC140
AT24C02N-10SC
R608 100 1/16W
Q126 KSC1623-Y
DDC-WE
HDMI-DDC-SCL_5V
HDMI-DDC-SDA_5V
(EDID OF HDMI)
D3.3V
R604 2.2K 1/16W
HDMI-DDC-SCL_5V
R595 100 1/16W
Q125 2N7002L
HDMI-DDC-SCL_3.3V
D3.3V
R603 2.2K 1/16W
HDMI-DDC-SDA_5V
R594 100 1/16W
Q124 2N7002L
HDMI-DDC-SDA_3.3V
(HDMI SOUND INPUT)
CN111 PPJ 123-06
L124 10uH
L123 10uH
HDMI-L
HDMI-R
D135 CDS3C30GTH
D136 CDS3C30GTH
C615 100pF 50V
C616 100pF 50V

6-2-8 LVDS_OUTPUT

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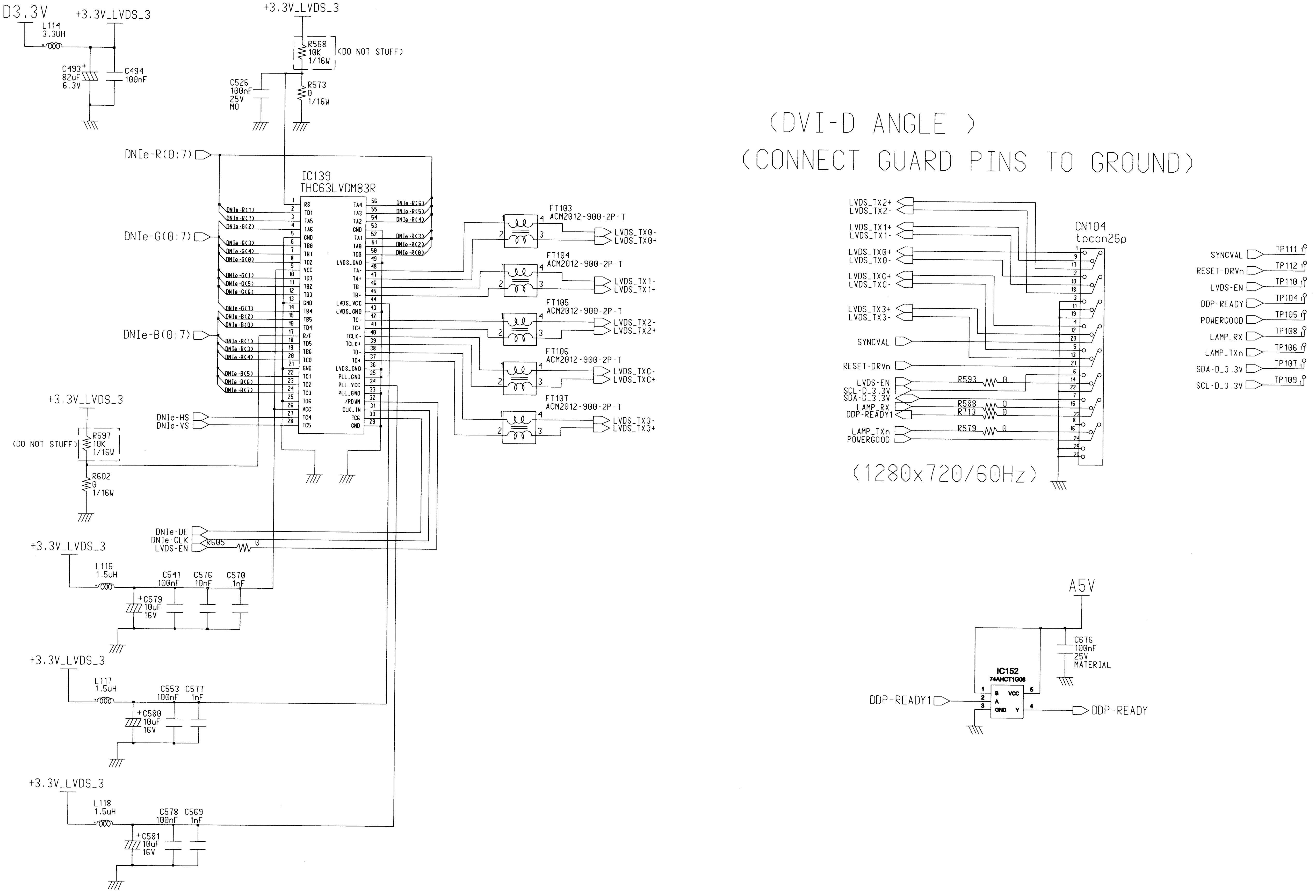
D3.3V
+3.3V_LVDS_3
L114
3.3UH
C493
82uF
6.3V
C494
100nF
+3.3V_LVDS_3
R568
10K
1/16W
(DO NOT STUFF)
C526
100nF
25V
MO
R573
0
1/16W
DNIe-R(0:7)
DNIe-G(0:7)
DNIe-B(0:7)
IC139
THC63LVDM83R
FT103
ACM2012-900-2P-T
LVDS_TX0-
LVDS_TX0+
FT104
ACM2012-900-2P-T
LVDS_TX1-
LVDS_TX1+
FT105
ACM2012-900-2P-T
LVDS_TX2-
LVDS_TX2+
FT106
ACM2012-900-2P-T
LVDS_TXC-
LVDS_TXC+
FT107
ACM2012-900-2P-T
LVDS_TX3-
LVDS_TX3+
+3.3V_LVDS_3
R597
10K
1/16W
(DO NOT STUFF)
R602
0
1/16W
DNIe-HS
DNIe-VS
DNIe-DE
DNIe-CLK
LVDS-EN
R605
0
+3.3V_LVDS_3
L116
1.5uH
C541
100nF
C576
10nF
C570
1nF
C579
10uF
16V
+3.3V_LVDS_3
L117
1.5uH
C553
100nF
C577
1nF
C580
10uF
16V
+3.3V_LVDS_3
L118
1.5uH
C578
100nF
C569
1nF
C581
10uF
16V
(DVI-D ANGLE)
(CONNECT GUARD PINS TO GROUND)
LVDS_TX2+
LVDS_TX2-
LVDS_TX1+
LVDS_TX1-
LVDS_TX0+
LVDS_TX0-
LVDS_TXC+
LVDS_TXC-
LVDS_TX3+
LVDS_TX3-
SYNCVAL
RESET-DRVn
LVDS-EN
SCL-D_3.3V
SDA-D_3.3V
LAMP_RX
DDP-READY1
LAMP_TXn
POWERGOOD
R593
0
R588
0
R713
0
R579
0
CN104
tpcon26p
(1280x720/60Hz)
SYNCVAL
TP111
RESET-DRVn
TP112
LVDS-EN
TP110
DDP-READY
TP104
POWERGOOD
TP105
LAMP_RX
TP108
LAMP_TXn
TP106
SDA-D_3.3V
TP107
SCL-D_3.3V
TP109
A5V
C676
100nF
25V
MATERIAL
IC152
74AHCT1G08
DDP-READY1
DDP-READY

6-2-9 SDA6001

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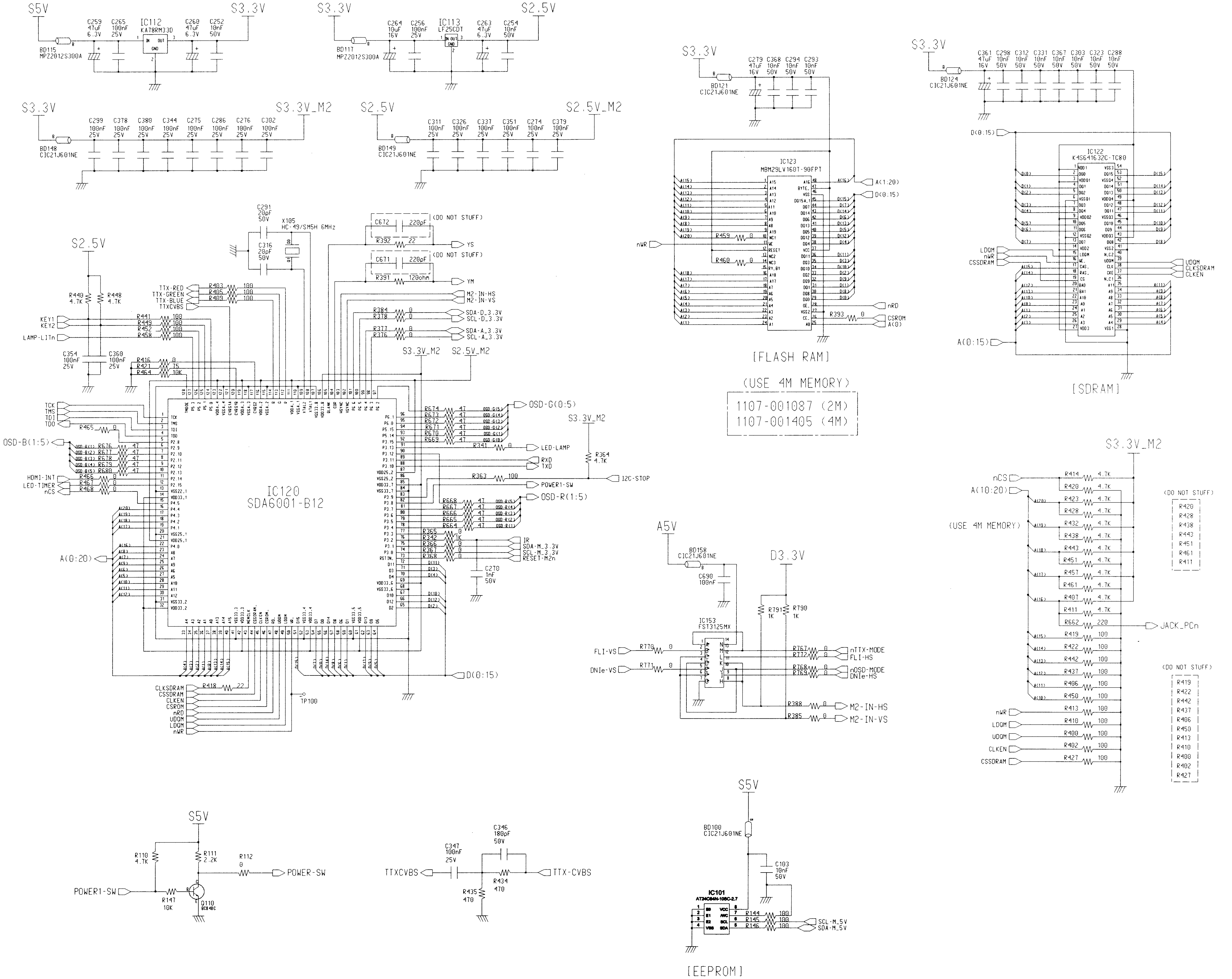
S5V
S3.3V
S2.5V
S3.3V_M2
S2.5V_M2
IC112
KA78RM33D
IC113
LF25CDT
BD115
MPZ2012S300A
BD117
BD148
CIC21J601NE
BD149
X105
HC-49/SMSH 6MHz
(DO NOT STUFF)
YS
YM
TTX-RED
TTX-GREEN
TTX-BLUE
TTXCVBS
KEY1
KEY2
LAMP-LIIn
M2-IN-HS
M2-IN-VS
SDA-D_3.3V
SCL-D_3.3V
SDA-A_3.3V
SCL-A_3.3V
TCK
TMS
TDI
TDO
OSD-B(1:5)
HDMI-INT
LED-TIMER
nCS
A(0:20)
IC120
SDA6001-B12
OSD-G(0:5)
LED-LAMP
RXD
TXD
I2C-STOP
POWER1-SW
OSD-R(1:5)
IR
SDA-M_3.3V
SCL-M_3.3V
RESET-M2n
D(0:15)
CLKSDRAM
CSSDRAM
CLKEN
CSROM
nRD
UDQM
LDQM
nWR
TP100
IC123
MBM29LV160T-90FPT
A(1:20)
nRD
CSROM
A(0)
[FLASH RAM]
(USE 4M MEMORY)
1107-001087 (2M)
1107-001405 (4M)
IC122
K4S641632C-TC80
[SDRAM]
A(0:15)
BD121
BD124
A5V
D3.3V
BD158
IC153
FST3125MX
FLI-VS
DNIe-VS
nTTX-MODE
FLI-HS
nOSD-MODE
DNIe-HS
M2-IN-HS
M2-IN-VS
A(10:20)
(USE 4M MEMORY)
JACK_PCn
(DO NOT STUFF)
POWER1-SW
POWER-SW
Q110
TTXCVBS
TTX-CVBS
BD100
IC101
SCL-M_5V
SDA-M_5V
[EEPROM]

6-2-10 SDA6001_SUB

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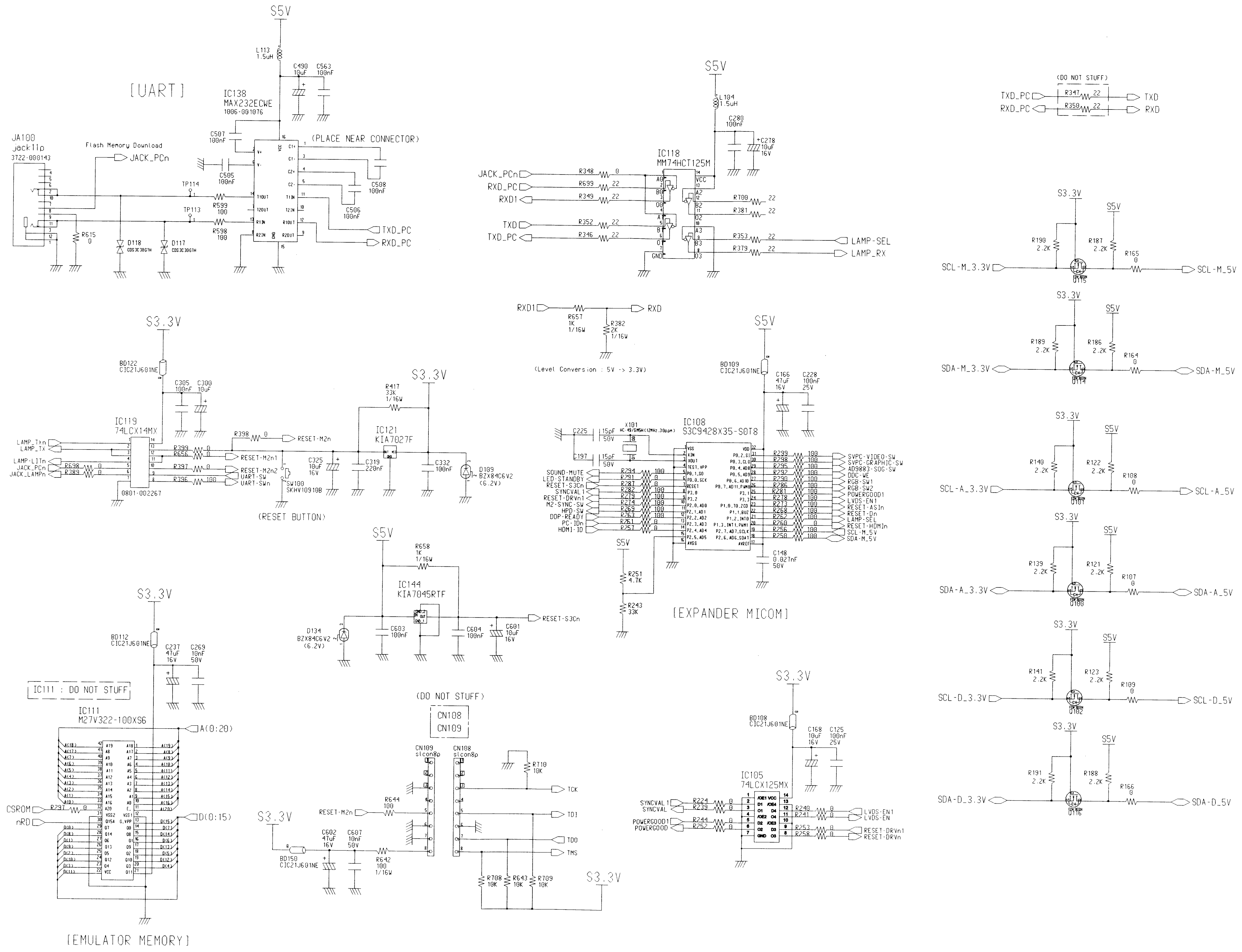
[UART]
IC138
MAX232ECWE
1006-001076
(PLACE NEAR CONNECTOR)
JA100
jack11p
3722-000143
Flash Memory Download
JACK_PCn
TXD_PC
RXD_PC
S5V
IC118
MM74HCT125M
JACK_PCn
RXD_PC
RXD1
TXD
TXD_PC
LAMP-SEL
LAMP_RX
(DO NOT STUFF)
TXD_PC
RXD_PC
TXD
RXD
RXD1
RXD
(Level Conversion : 5V -> 3.3V)
S3.3V
IC119
74LCX14MX
LAMP_Txn
LAMP_Tx
LAMP-LTIn
JACK_PCn
JACK_LAMPn
RESET-M2n
RESET-M2n1
RESET-M2n2
UART-SW
UART-SWn
IC121
KIA7027F
SW100
SKHV10910B
D109
BZX84C6V2
(6.2V)
(RESET BUTTON)
IC144
KIA7045RTF
RESET-S3Cn
D134
BZX84C6V2
(6.2V)
IC108
S3C9428X35-S0T8
SOUND-MUTE
LED-STANDBY
RESET-S3Cn
SYNCVAL1
RESET-DRVn1
M2-SYNC-SW
HPD-SW
DDP-READY
PC-IDn
HDMI-ID
SVPC-VIDEO-SW
SVPC-GRAPHIC-SW
AD9883-SOG-SW
DDC-WE
RGB-SW1
RGB-SW2
POWERGOOD1
LVDS-EN1
RESET-ASIn
RESET-Dn
LAMP-SEL
RESET-HDMIn
SCL-M_5V
SDA-M_5V
[EXPANDER MICOM]
SCL-M_3.3V
SCL-M_5V
SDA-M_3.3V
SDA-M_5V
SCL-A_3.3V
SCL-A_5V
SDA-A_3.3V
SDA-A_5V
SCL-D_3.3V
SCL-D_5V
SDA-D_3.3V
SDA-D_5V
IC111 : DO NOT STUFF
IC111
M27V322-100XS6
A(0:20)
D(0:15)
CSROM
nRD
[EMULATOR MEMORY]
(DO NOT STUFF)
CN108
CN109
RESET-M2n
TCK
TDI
TDO
TMS
S3.3V
IC105
74LCX125MX
SYNCVAL1
SYNCVAL
POWERGOOD1
POWERGOOD
LVDS-EN1
LVDS-EN
RESET-DRVn1
RESET-DRVn

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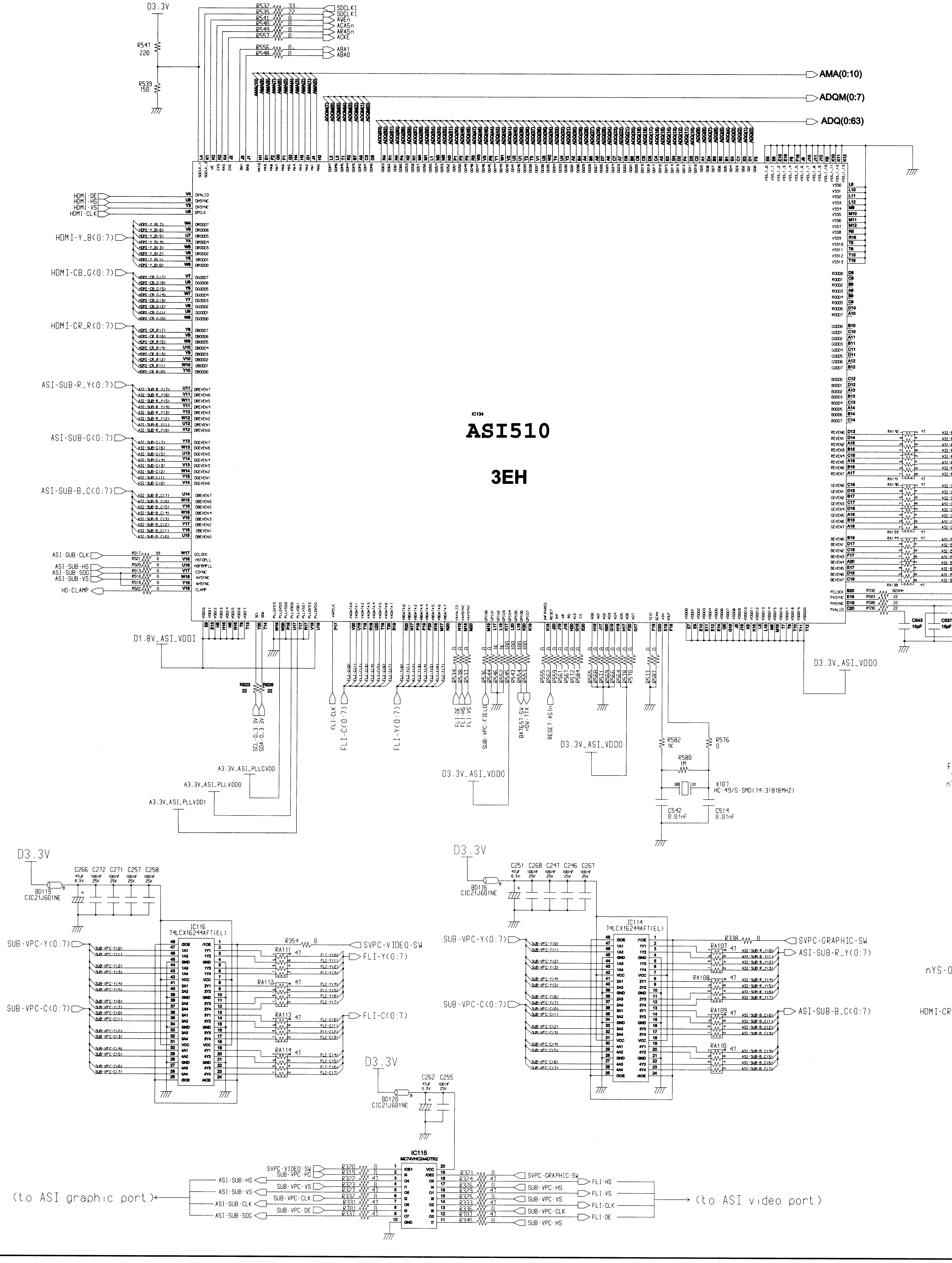
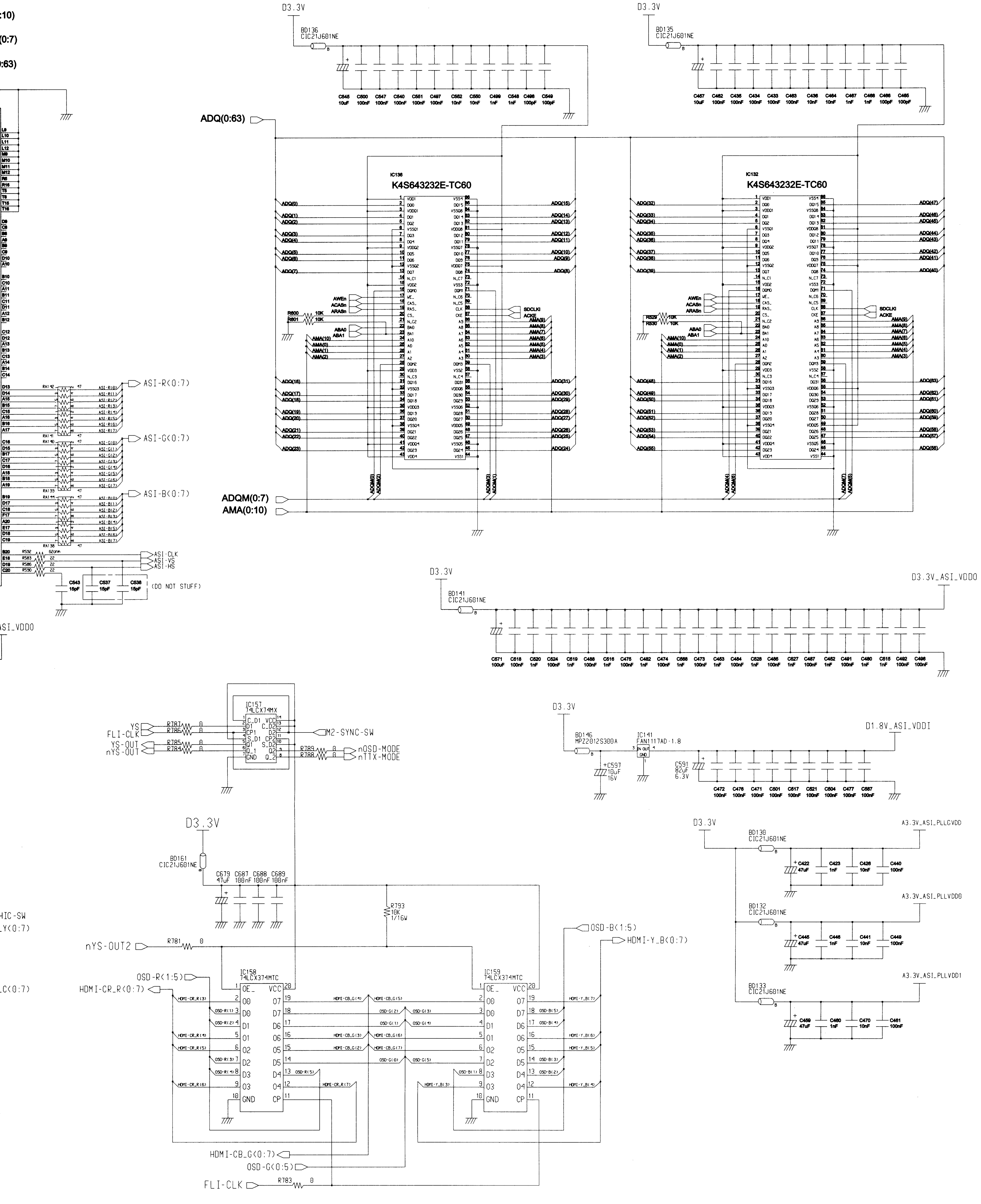

D3.3V
R547 220
R539 150
SDCLKI
SDCLKI
AWEn
ACASn
ARASn
ACKE
ABA1
ABA0
AMA(0:10)
ADQM(0:7)
ADQ(0:63)
HDMI-DE
HDMI-HS
HDMI-VS
HDMI-CLK
HDMI-Y_B(0:7)
HDMI-CB_G(0:7)
HDMI-CR_R(0:7)
ASI-SUB-R_Y(0:7)
ASI-SUB-G(0:7)
ASI-SUB-B_C(0:7)
ASI-SUB-CLK
ASI-SUB-HS
ASI-SUB-SOG
ASI-SUB-VS
HD-CLAMP
IC134
ASI510
3EH
D1.8V_ASI_VDDI
R523 22
R526 22
SCL-D-3.3V
SDA-D-3.3V
A3.3V_ASI_PLLGVDD
A3.3V_ASI_PLLVDD0
A3.3V_ASI_PLLVDD1
FLI-CLK
FLI-C(0:7)
FLI-Y(0:7)
FLI-DE
FLI-HS
FLI-VS
SUB-VPC-FIELD
BAT657-SW
RESET-ASIn
D3.3V_ASI_VDDO
R582 1K
R576 0
R580 1M
X107
HC-49/S-SMD(14.31818MHZ)
C542 0.01nF
C514 0.01nF
C543 15pF
D3.3V
C266 C272 C271 C257 C258
BD119
CIC21J601NE
IC116
74LCX16244AFT(EL)
SUB-VPC-Y(0:7)
SUB-VPC-C(0:7)
R354 0
SVPC-VIDEO-SW
FLI-Y(0:7)
RA111 47
RA112 47
RA113 47
RA114 47
FLI-C(0:7)
D3.3V
C251 C268 C247 C246 C267
BD116
CIC21J601NE
IC114
74LCX16244AFT(EL)
R338 0
SVPC-GRAPHIC-SW
ASI-SUB-R_Y(0:7)
RA107 47
RA108 47
RA109 47
RA110 47
ASI-SUB-B_C(0:7)
D3.3V
C262 C255
BD120
CIC21J601NE
IC115
MC74VHC244DTR2
SVPC-VIDEO-SW
SUB-VPC-HS
SUB-VPC-VS
SUB-VPC-CLK
SUB-VPC-DE
ASI-SUB-HS
ASI-SUB-VS
ASI-SUB-CLK
ASI-SUB-SOG
SVPC-GRAPHIC-SW
SUB-VPC-HS
SUB-VPC-VS
SUB-VPC-CLK
SUB-VPC-HS
FLI-HS
FLI-VS
FLI-CLK
FLI-DE
(to ASI graphic port)
(to ASI video port)
nYS-0
HDMI-CR


D3.3V
BD136
CIC21J601NE
BD135
ADQ(0:63)
IC136
K4S643232E-TC60
IC132
K4S643232E-TC60
AWEn
ACASn
ARASn
R600
R601
10K
ABA0
ABA1
SDCLKI
ACKE
AMA(0:10)
ADQM(0:7)
ASI-R(0:7)
ASI-G(0:7)
ASI-B(0:7)
ASI-CLK
ASI-VS
ASI-HS
(DO NOT STUFF)
BD141
D3.3V_ASI_VDDO
IC157
74LCX74MX
YS
FLI-CLK
YS-OUT
nYS-OUT
M2-SYNC-SW
nOSD-MODE
nTTX-MODE
BD146
MPZ2012S300A
IC141
FAN1117AD-1.8
D1.8V_ASI_VDDI
C591
82uF
6.3V
C597
10uF
16V
BD161
CIC21J601NE
C679 C687 C688 C689
47uF 100nF 100nF 100nF
R793
10K
1/16W
nYS-OUT2
R781
OSD-B(1:5)
HDMI-Y_B(0:7)
IC158
74LCX374MTC
IC159
74LCX374MTC
OSD-R(1:5)
HDMI-CR_R(0:7)
HDMI-CB_G(0:7)
OSD-G(0:5)
FLI-CLK
R783
BD130
A3.3V_ASI_PLLGVDD
BD132
A3.3V_ASI_PLLVDDG
BD133
A3.3V_ASI_PLLVDDI

6-2-12 DNIe_Pro

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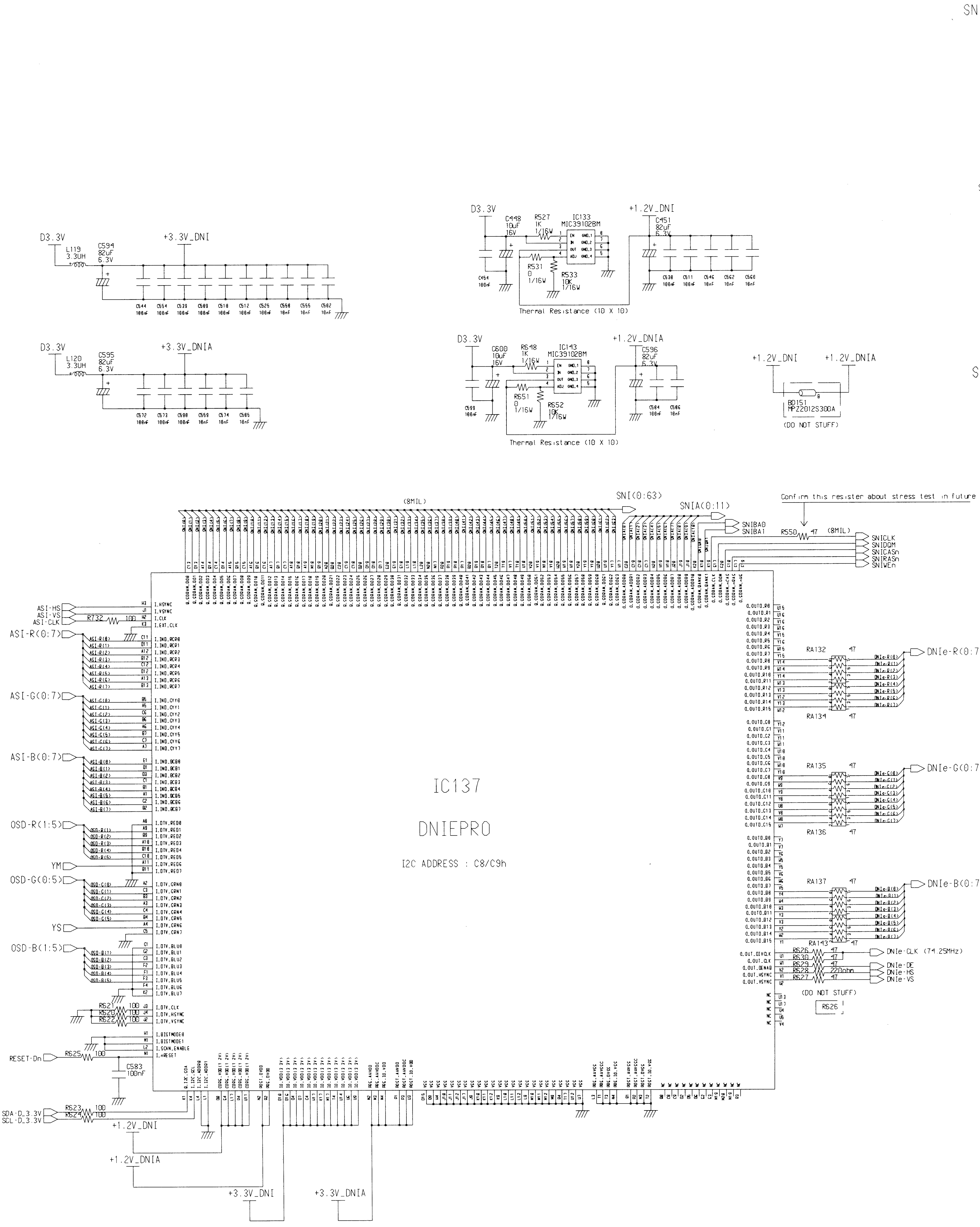
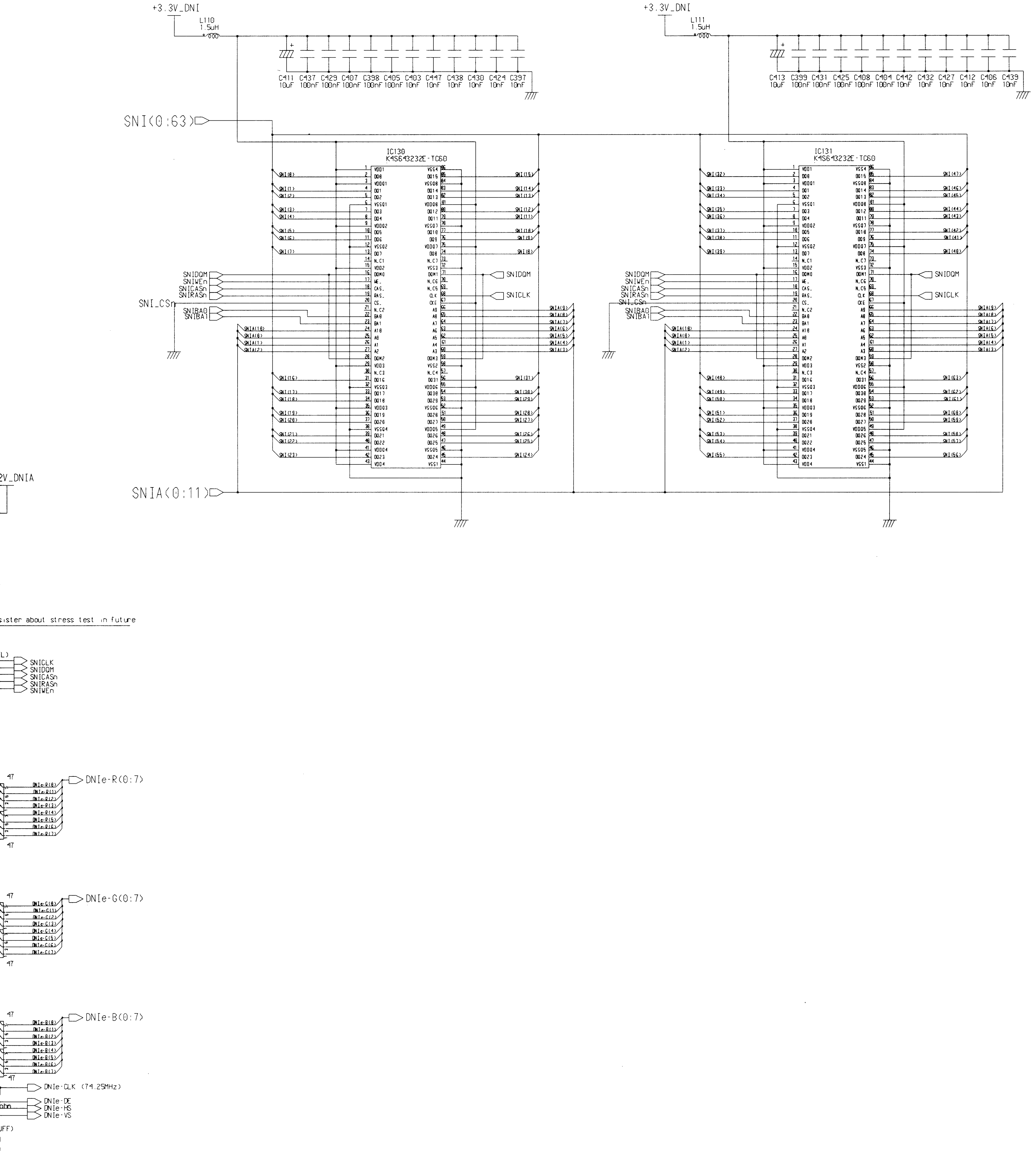

D3.3V
L119
3.3UH
C594
82uF
6.3V
+3.3V_DNI
C544 C554 C539 C509 C510 C512 C525 C558 C555 C502
D3.3V
L120
3.3UH
C595
82uF
6.3V
+3.3V_DNIA
C572 C573 C598 C599 C574 C565
D3.3V
C448
10uF
16V
R527
1K
1/16W
IC133
MIC39102BM
+1.2V_DNI
C451
82uF
6.3V
R531
0
1/16W
R533
10K
1/16W
C454
100nF
C538 C511 C546 C562 C560
Thermal Resistance (10 X 10)
D3.3V
C600
10uF
16V
R648
1K
1/16W
IC143
MIC39102BM
+1.2V_DNIA
C596
82uF
6.3V
R651
0
1/16W
R652
10K
1/16W
C599
100nF
C584 C586
Thermal Resistance (10 X 10)
+1.2V_DNI
+1.2V_DNIA
BD151
MPZ2012S300A
(DO NOT STUFF)
(8MIL)
SNI(0:63)
SNIA(0:11)
SNIBA0
SNIBA1
Confirm this resister about stress test in future
R550
47
(8MIL)
SNICLK
SNIDQM
SNICASn
SNIRASn
SNIWEn
ASI-HS
ASI-VS
ASI-CLK
R732
100
ASI-R(0:7)
ASI-G(0:7)
ASI-B(0:7)
OSD-R(1:5)
YM
OSD-G(0:5)
YS
OSD-B(1:5)
IC137
DNIEPRO
I2C ADDRESS : C8/C9h
RA132
RA134
DNIe-R(0:7
RA135
RA136
DNIe-G(0:7
RA137
RA143
DNIe-B(0:7
47
R626
R630
R629
R628
R627
220ohm
DNIe-CLK (74.25MHz)
DNIe-DE
DNIe-HS
DNIe-VS
(DO NOT STUFF)
R626
R621
R620
R622
100
RESET-Dn
R625
100
C583
100nF
SDA-D_3.3V
SCL-D_3.3V
R623
R624
100
+1.2V_DNI
+1.2V_DNIA
+3.3V_DNI
+3.3V_DNIA
SN
S
S


+3.3V_DNI
L110
1.5uH
C411 10uF
C437 100nF
C429 100nF
C407 100nF
C398 100nF
C405 100nF
C403 10nF
C447 10nF
C438 10nF
C430 10nF
C424 10nF
C397 10nF
+3.3V_DNI
L111
1.5uH
C413 10uF
C399 100nF
C431 100nF
C425 100nF
C408 100nF
C404 100nF
C442 10nF
C432 10nF
C427 10nF
C412 10nF
C406 10nF
C439 10nF
SNI(0:63)
IC130
K4S643232E-TC60
IC131
K4S643232E-TC60
SNIDQM
SNIWEn
SNICASn
SNIRASn
SNI_CSn
SNIBA0
SNIBA1
SNIDQM
SNICLK
2V_DNIA
SNIA(0:11)
sister about stress test in future
L)
SNICLK
SNIDQM
SNICASn
SNIRASn
SNIWEn
47
DNIe-R(0:7)
47
47
DNIe-G(0:7)
47
47
DNIe-B(0:7)
47
DNIe-CLK (74.25MHz)
DNIe-DE
DNIe-HS
DNIe-VS
UFF)

6-3 DMD

6-3-1 SIL151

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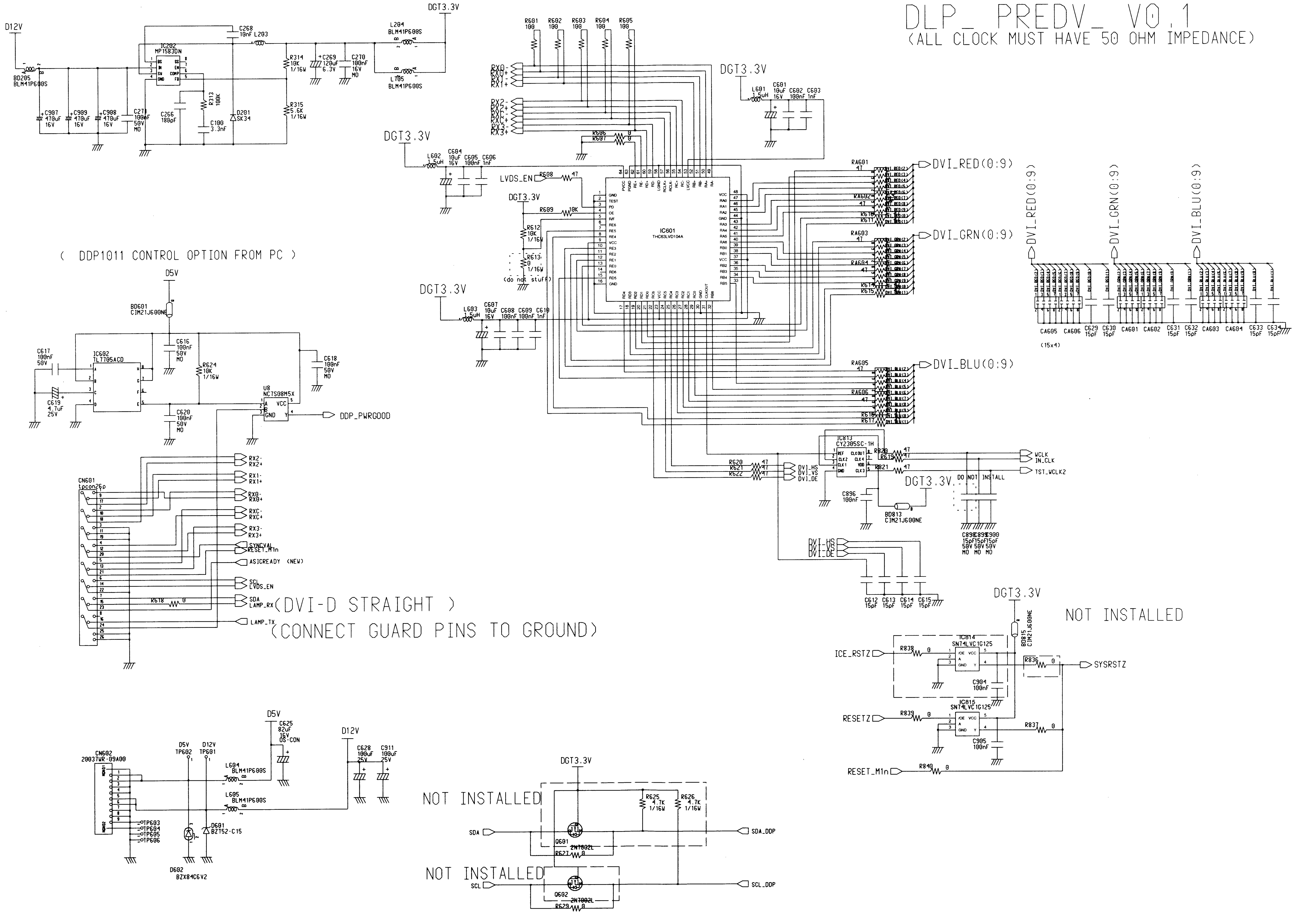
DLP_ PREDV_ V0.1
(ALL CLOCK MUST HAVE 50 OHM IMPEDANCE)
D12V
DGT3.3V
D5V
IC202 MP1583DN
IC601 THC63LVD104A
IC602 TL7705ACD
U8 NC7S08M5X
IC813 CY2305SC-1H
IC814 SN74LVC1G125
IC815 SN74LVC1G125
CN601 tpcon26p
CN602 20037WR-09A00
(DDP1011 CONTROL OPTION FROM PC)
DDP_PWRGOOD
DVI_RED(0:9)
DVI_GRN(0:9)
DVI_BLU(0:9)
DVI_HS
DVI_VS
DVI_DE
WCLK
IN_CLK
TST_WCLK2
LVDS_EN
RX0-
RX0+
RX1-
RX1+
RX2-
RX2+
RX3-
RX3+
RXC-
RXC+
SYNCVAL
RESET_M1n
ASICREADY (NEW)
SCL
SDA
LAMP_RX
LAMP_TX
(DVI-D STRAIGHT)
(CONNECT GUARD PINS TO GROUND)
NOT INSTALLED
DO NOT INSTALL
ICE_RSTZ
RESETZ
SYSRSTZ
SDA_DDP
SCL_DDP
Q601 2N7002L
Q602 2N7002L
D201 SK34
D601 BZT52-C15
D602 BZX84C6V2
TP601
TP602
TP603
TP604
TP605
TP606
(do not stuff)
(15x4)

6-3-2 FPGA

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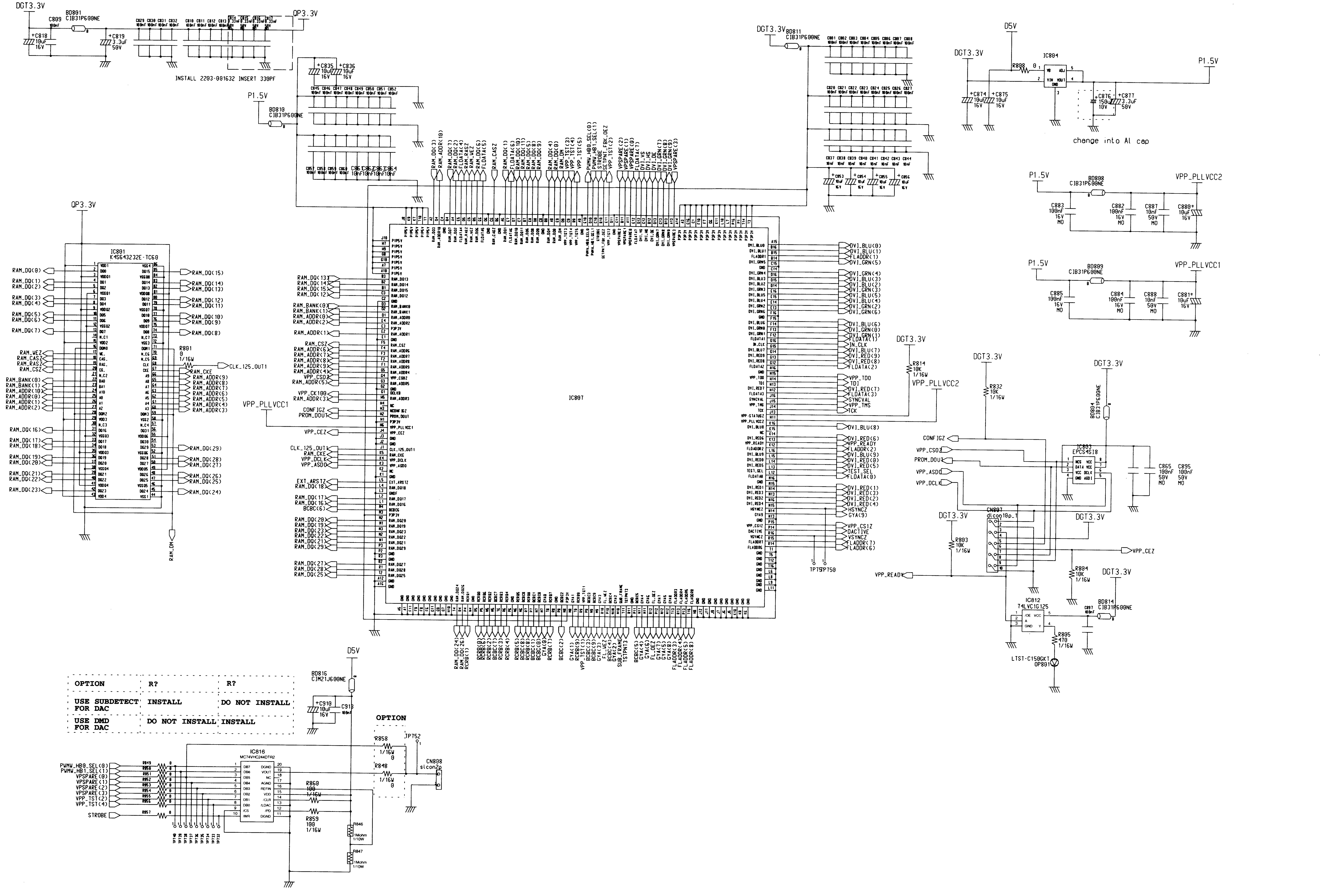
DGT3.3V
DP3.3V
P1.5V
D5V
BD801 CIB31P600NE
INSTALL 2203-001632 INSERT 330PF
BD810 CIB31P600NE
BD811 CIB31P600NE
IC804
change into Al cap
BD808 CIB31P600NE
VPP_PLLVCC2
BD809 CIB31P600NE
VPP_PLLVCC1
IC801 K4S643232E-TC60
IC807
IC803 EPCS4SI8
CN807 slcon10p_1
IC812 74LVC1G125
BD814 CIB31P600NE
LTST-C150GKT DP801
BD816 CIM21J600NE
IC816 MC74VHC244DTR2
CN808 slcon2p
OPTION
R858
R848
TP752
R860 100 1/16W
R859 100 1/16W
R846 1Mohm 1/10W
R847 1Mohm 1/10W
CLK_125_OUT1
VPP_READY
VPP_CEZ
CONFIGZ
VPP_CSOZ
PROM_DOUT
VPP_ASDO
VPP_DCLK
PWMW_HB0_SEL(0)
PWMW_HB1_SEL(1)
VPSPARE(0)
VPSPARE(1)
VPSPARE(2)
VPSPARE(3)
VPP_TST(2)
VPP_TST(4)
STROBE
RAM_DM

OPTION	R?	R?
USE SUBDETECT FOR DAC	INSTALL	DO NOT INSTALL
USE DMD FOR DAC	DO NOT INSTALL	INSTALL

6-3-3 FLASH

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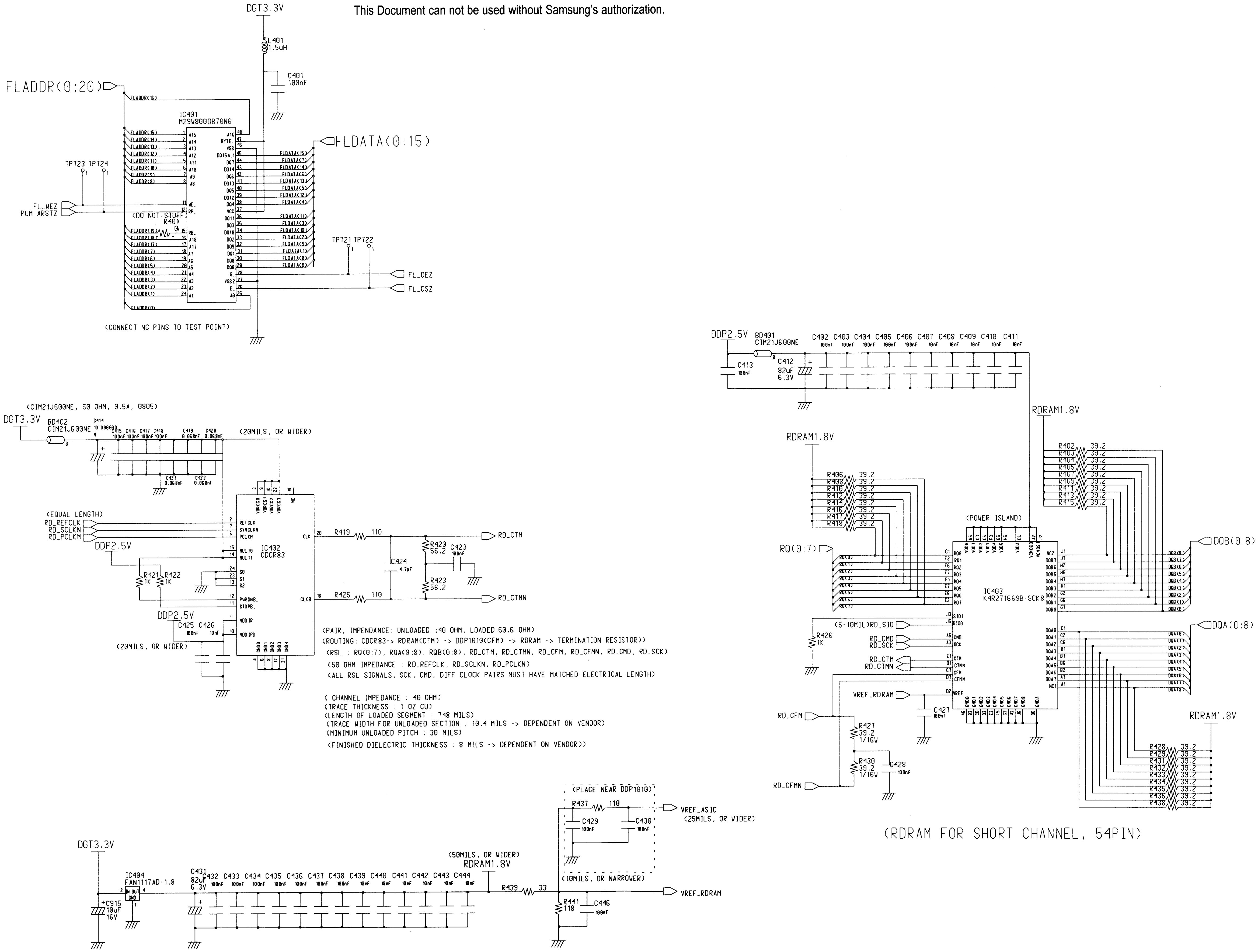
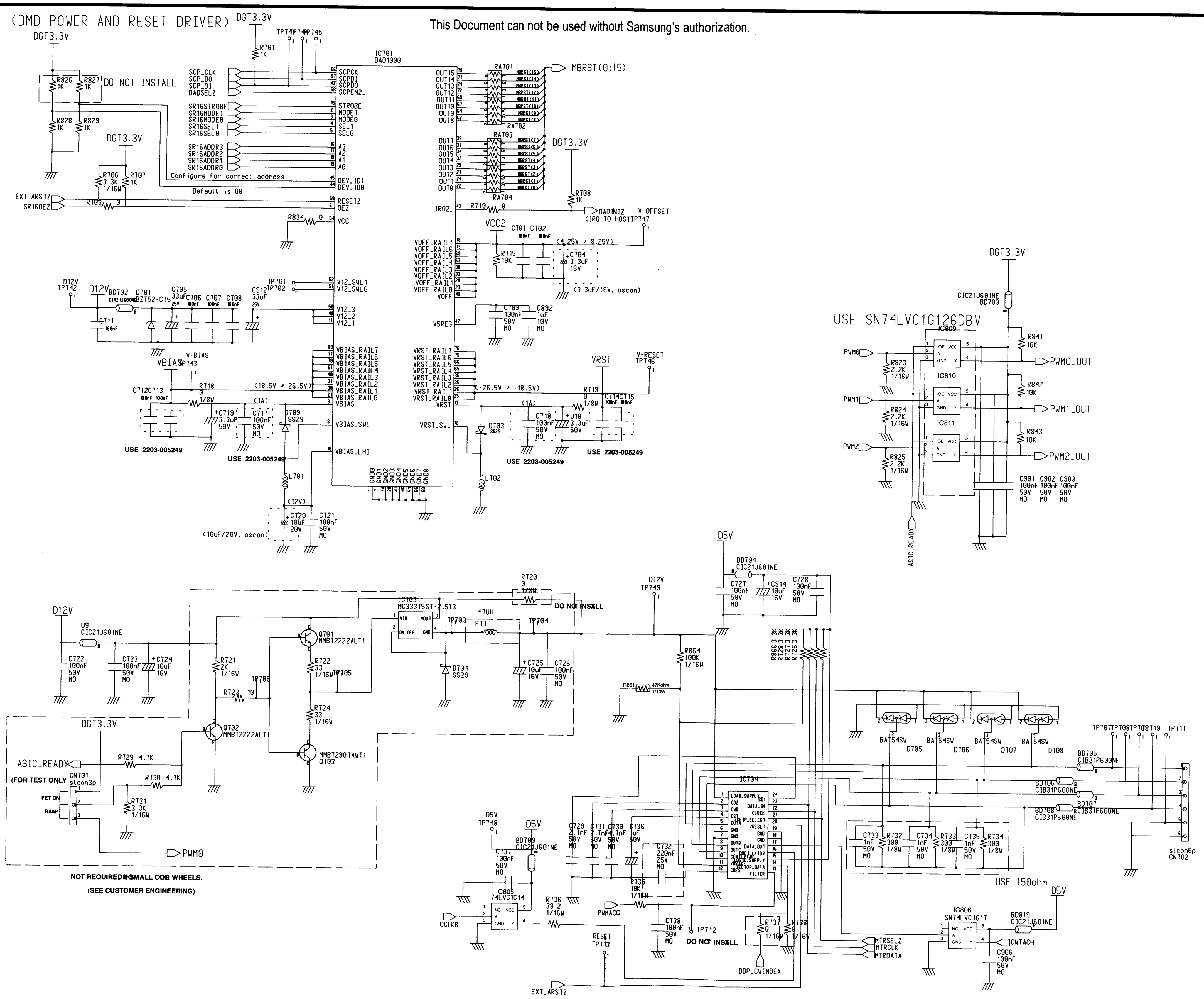

DGT3.3V
L401
1.5uH
C401
100nF
FLADDR(0:20)
IC401
M29W800DBT0N6
FLDATA(0:15)
TP723 TP724
FL_WEZ
PUM_ARSTZ
(DO NOT STUFF)
R401
TP721 TP722
FL_OEZ
FL_CSZ
(CONNECT NC PINS TO TEST POINT)
(CIM21J600NE, 60 OHM, 0.5A, 0805)
BD402
CIM21J600NE
C415 C416 C417 C418 C419 C420
C421 C422
(20MILS, OR WIDER)
(EQUAL LENGTH)
RD_REFCLK
RD_SCLKN
RD_PCLKN
DDP2.5V
IC402
CDCR83
R421 1K
R422 1K
C425 C426
(20MILS, OR WIDER)
R419 110
R425 110
R420 56.2
R423 56.2
C423 100nF
C424 4.7pF
RD_CTM
RD_CTMN
(PAIR, IMPENDANCE: UNLOADED :40 OHM, LOADED:60.6 OHM)
(ROUTING: CDCR83-> RDRAM(CTM) -> DDP1010(CFM) -> RDRAM -> TERMINATION RESISTOR))
(RSL : RQ(0:7), RQA(0:8), RQB(0:8), RD_CTM, RD_CTMN, RD_CFM, RD_CFMN, RD_CMD, RD_SCK)
(50 OHM IMPEDANCE : RD_REFCLK, RD_SCLKN, RD_PCLKN)
(ALL RSL SIGNALS, SCK, CMD, DIFF CLOCK PAIRS MUST HAVE MATCHED ELECTRICAL LENGTH)
(CHANNEL IMPEDANCE : 40 OHM)
(TRACE THICKNESS : 1 OZ CU)
(LENGTH OF LOADED SEGMENT : 748 MILS)
(TRACE WIDTH FOR UNLOADED SECTION : 10.4 MILS -> DEPENDENT ON VENDOR)
(MINIMUM UNLOADED PITCH : 30 MILS)
(FINISHED DIELECTRIC THICKNESS : 8 MILS -> DEPENDENT ON VENDOR))
DDP2.5V
BD401
CIM21J600NE
C402 C403 C404 C405 C406 C407 C408 C409 C410 C411
C413 100nF
C412 82uF 6.3V
RDRAM1.8V
R402 39.2
R406 39.2
RQ(0:7)
(POWER ISLAND)
IC403
K4R271669B-SCK8
DQB(0:8)
DQA(0:8)
(5-10MIL)RD_SIO
R426 1K
RD_CMD
RD_SCK
RD_CTM
RD_CTMN
VREF_RDRAM
C427 100nF
RD_CFM
RD_CFMN
R427 39.2 1/16W
R430 39.2 1/16W
C428 100nF
R428 39.2
(RDRAM FOR SHORT CHANNEL, 54PIN)
(PLACE NEAR DDP1010)
R437 110
C429 C430
VREF_ASIC
(25MILS, OR WIDER)
(50MILS, OR WIDER)
RDRAM1.8V
(10MILS, OR NARROWER)
R439 33
R441 118
C446
VREF_RDRAM
DGT3.3V
IC404
FAN1117AD-1.8
C915 10uF 16V
C431 82uF 6.3V
C432 C433 C434 C435 C436 C437 C438 C439 C440 C441 C442 C443 C444

6-3-4 DAD1000



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(DMD POWER AND RESET DRIVER)
DGT3.3V
TP744 TP744 TP745
R701 1K
IC701 DAD1000
R826 1K
R827 1K
DO NOT INSTALL
SCP_CLK
SCP_DO
SCP_DI
DADSELZ
SR16STROBE
SR16MODE1
SR16MODE0
SR16SEL1
SR16SEL0
SR16ADDR3
SR16ADDR2
SR16ADDR1
SR16ADDR0
R828 1K
R829 1K
R706 3.3K 1/16W
R707 1K
Configure for correct address
Default is 00
EXT_ARSTZ
SR160EZ
R709 0
R834 0
SCPCK
SCPDI
SCPDO
SCPEN2_
STROBE
MODE1
MODE0
SEL1
SEL0
A3
A2
A1
A0
DEV_ID1
DEV_ID0
RESETZ
OEZ
VCC
OUT15
OUT14
OUT13
OUT12
OUT11
OUT10
OUT9
OUT8
OUT7
OUT6
OUT5
OUT4
OUT3
OUT2
OUT1
OUT0
RA701
RA702
RA703
RA704
MBRST(0:15)
R708 1K
IRQ2_
R710 0
DADINTZ
V-OFFSET
(IRQ TO HOST)
TP747
VCC2
C701 C702 100nF 100nF
VOFF_RAIL7
VOFF_RAIL6
VOFF_RAIL5
VOFF_RAIL4
VOFF_RAIL3
VOFF_RAIL2
VOFF_RAIL1
VOFF_RAIL0
VOFF
(4.25V ~ 8.25V)
R715 10K
C704 3.3uF 16V
(3.3uF/16V, oscon)
V5REG
C709 100nF 50V MO
C892 1uF 10V MO
D12V
TP742
BD702
D701
BZT52-C15
C705 33uF 25V
C706 C707 C708 100nF
C912 33uF 25V
TP701
TP702
V12_SWL1
V12_SWL0
V12_3
V12_2
V12_1
C711 100nF
V-BIAS
VBIAS
TP743
C712 C713 100nF 100nF
R718 0 1/8W
(18.5V ~ 26.5V)
(1A)
C719 3.3uF 50V
C717 100nF 50V MO
D709 SS29
USE 2203-005249
VBIAS_RAIL7
VBIAS_RAIL6
VBIAS_RAIL5
VBIAS_RAIL4
VBIAS_RAIL3
VBIAS_RAIL2
VBIAS_RAIL1
VBIAS_RAIL0
VBIAS
VBIAS_SWL
VBIAS_LH1
L701
(12V)
C720 10uF 20V
C721 100nF 50V MO
(10uF/20V, oscon)
GND0 GND1 GND2 GND3 GND4 GND5 GND6 GND7 GND8
VRST_RAIL7
VRST_RAIL6
VRST_RAIL5
VRST_RAIL4
VRST_RAIL3
VRST_RAIL2
VRST_RAIL1
VRST_RAIL0
VRST
VRST_SWL
VRST
V-RESET
TP746
(-26.5V ~ -18.5V)
R719 0 1/8W
(1A)
C714 C715 100nF 100nF
C718 100nF 50V MO
U10 3.3uF 50V
D703 SS29
L702
DGT3.3V
C1C21J601NE BD703
USE SN74LVC1G126DBV
IC809
IC810
IC811
PWM0
PWM1
PWM2
R823 2.2K 1/16W
R824 2.2K 1/16W
R825 2.2K 1/16W
R841 10K
R842 10K
R843 10K
PWM0_OUT
PWM1_OUT
PWM2_OUT
C901 C902 C903 100nF 100nF 100nF 50V 50V 50V MO MO MO
ASIC_READY
D5V
BD704 C1C21J601NE
C727 100nF 50V MO
C914 10uF 16V
C728 100nF 50V MO
R720 0 1/8W
DO NOT INSTALL
D12V
TP749
IC703 MC33375ST-2.5T3
VIN VOUT
ON_OFF GND
47UH
TP703 FT1
TP704
D704 SS29
C725 10uF 16V
C726 100nF 50V MO
D12V
U9 C1C21J601NE
C722 100nF 50V MO
C723 100nF 50V MO
C724 10uF 16V
Q701 MMBT2222ALT1
R721 2K 1/16W
TP706
R722 33 1/16W
TP705
R723 10
R724 33 1/16W
Q702 MMBT2222ALT1
MMBT2907AWT1 Q703
DGT3.3V
ASIC_READY
R729 4.7K
CN701 slcon3p
(FOR TEST ONLY)
FET ON
RAMP
R730 4.7K
R731 3.3K 1/16W
PWM0
NOT REQUIRED FOR SMALL COB WHEELS.
(SEE CUSTOMER ENGINEERING)
R864 100K 1/16W
R861 47Kohm 1/10W
R869 3.3K
R727 3.3K
R728 3.3K
R726 3.3K
BA754SW D705
BA754SW D706
BA754SW D707
BA754SW D708
TP707 TP708 TP709 TP710 TP711
BD705 C1B31P600NE
BD706 C1B31P600NE
BD707 C1B31P600NE
BD708 C1B31P600NE
slcon6p CN702
IC704
LOAD_SUPPLY
CS1
CS2
DATA_IN
CLOCK
CHIP_SELECT
RESET
OUT
GND
DATA_OUT
SUPPLY
C733 1nF 50V MO
R732 300 1/8W
C734 1nF 50V MO
R733 300 1/8W
C735 1nF 50V MO
R734 300 1/8W
USE 150ohm
D5V
TP748
D5V
BD709 C1C21J601NE
C737 100nF 50V MO
IC805 74LVC1G14
NC VCC
GND Y
OCLKB
C729 C731 C730 C736
2.7nF 2.7nF 4.7nF 1uF
50V 50V 50V 50V
MO MO MO
C732 220nF 25V
R735 10K 1/16W
R736 39.2 1/16W
PWMACC
RESET
TP713
C738 100nF 50V MO
TP712
DO NOT INSTALL
R737 0 1/16W
R738 0 1/16W
MTRSELZ
MTRCLK
MTRDATA
DDP_CWINDEX
IC806 SN74LVC1G17
BD819 C1C21J601NE
CWTACH
C906 100nF 50V MO
EXT_ARSTZ

6-3-5 DMD

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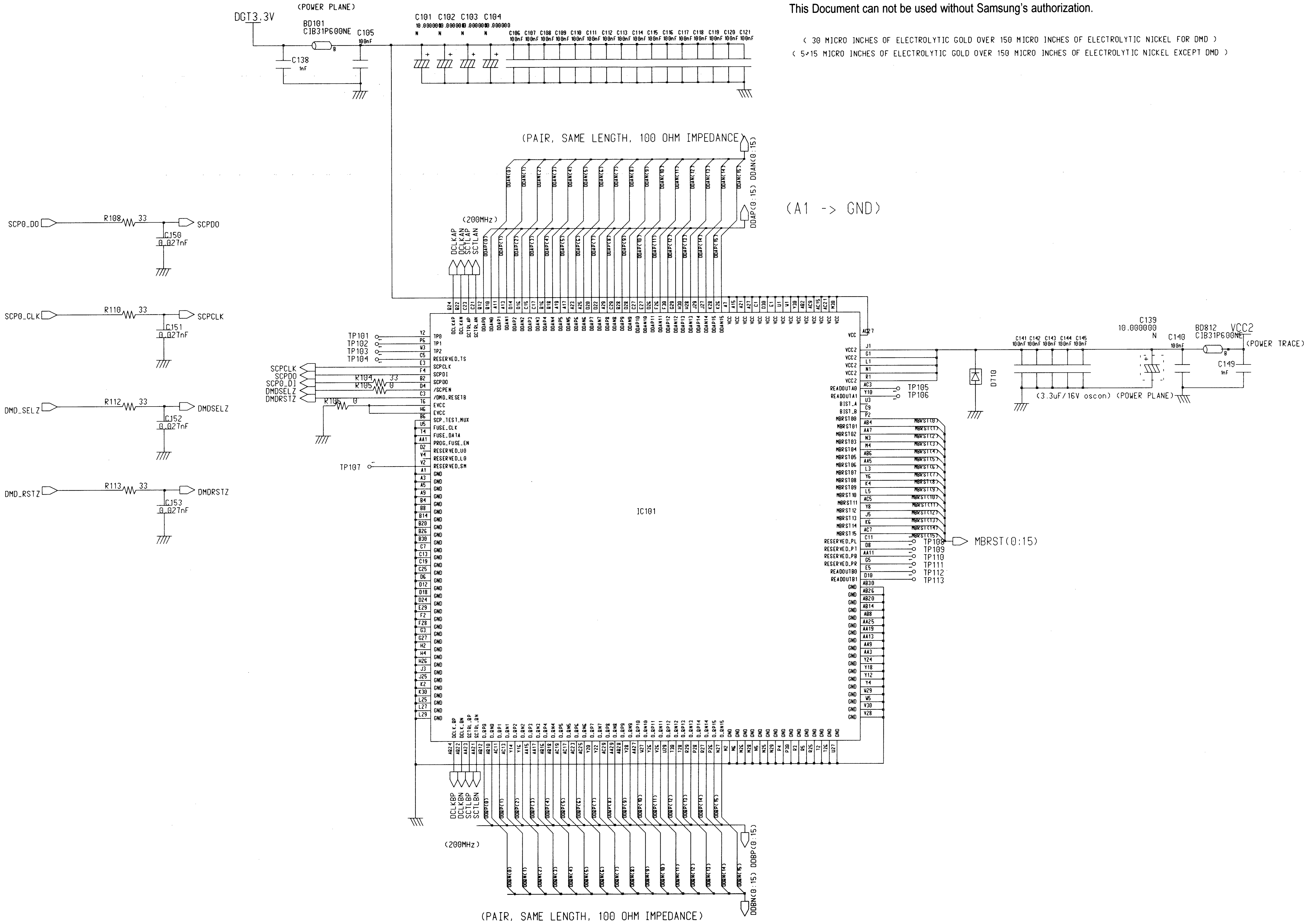
(30 MICRO INCHES OF ELECTROLYTIC GOLD OVER 150 MICRO INCHES OF ELECTROLYTIC NICKEL FOR DMD)
(5~15 MICRO INCHES OF ELECTROLYTIC GOLD OVER 150 MICRO INCHES OF ELECTROLYTIC NICKEL EXCEPT DMD)
DGT3.3V
(POWER PLANE)
BD101
CIB31P600NE
C105
100nF
C138
1nF
C101 C102 C103 C104
10.000000
C106 C107 C108 C109 C110 C111 C112 C113 C114 C115 C116 C117 C118 C119 C120 C121
100nF
(PAIR, SAME LENGTH, 100 OHM IMPEDANCE)
DDAN(0:15)
DDAP(0:15)
(A1 -> GND)
(200MHz)
DCLKAP
DCLKAN
SCTLAP
SCTLAN
SCP0_DO
R108 33
C150
0.027nF
SCPDO
SCP0_CLK
R110 33
C151
0.027nF
SCPCLK
DMD_SELZ
R112 33
C152
0.027nF
DMDSELZ
DMD_RSTZ
R113 33
C153
0.027nF
DMDRSTZ
TP101
TP102
TP103
TP104
SCPCLK
SCPDO
SCP0_DI
DMDSELZ
DMDRSTZ
R104 33
R105 0
R106 0
TP107
IC101
TP105
TP106
MBRST(0:15)
TP108
TP109
TP110
TP111
TP112
TP113
C139
10.000000
C140
100nF
BD812
CIB31P600NE
VCC2
(POWER TRACE)
C141 C142 C143 C144 C145
100nF
C149
1nF
D710
(3.3uF/16V oscon) (POWER PLANE)
DCLKBP
DCLKBN
SCTLBP
SCTLBN
(200MHz)
DDBP(0:15)
DDBN(0:15)
(PAIR, SAME LENGTH, 100 OHM IMPEDANCE)

6-3-6 CW

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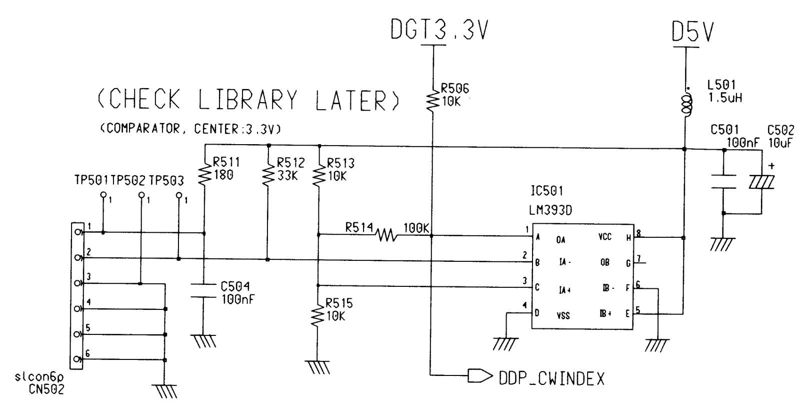
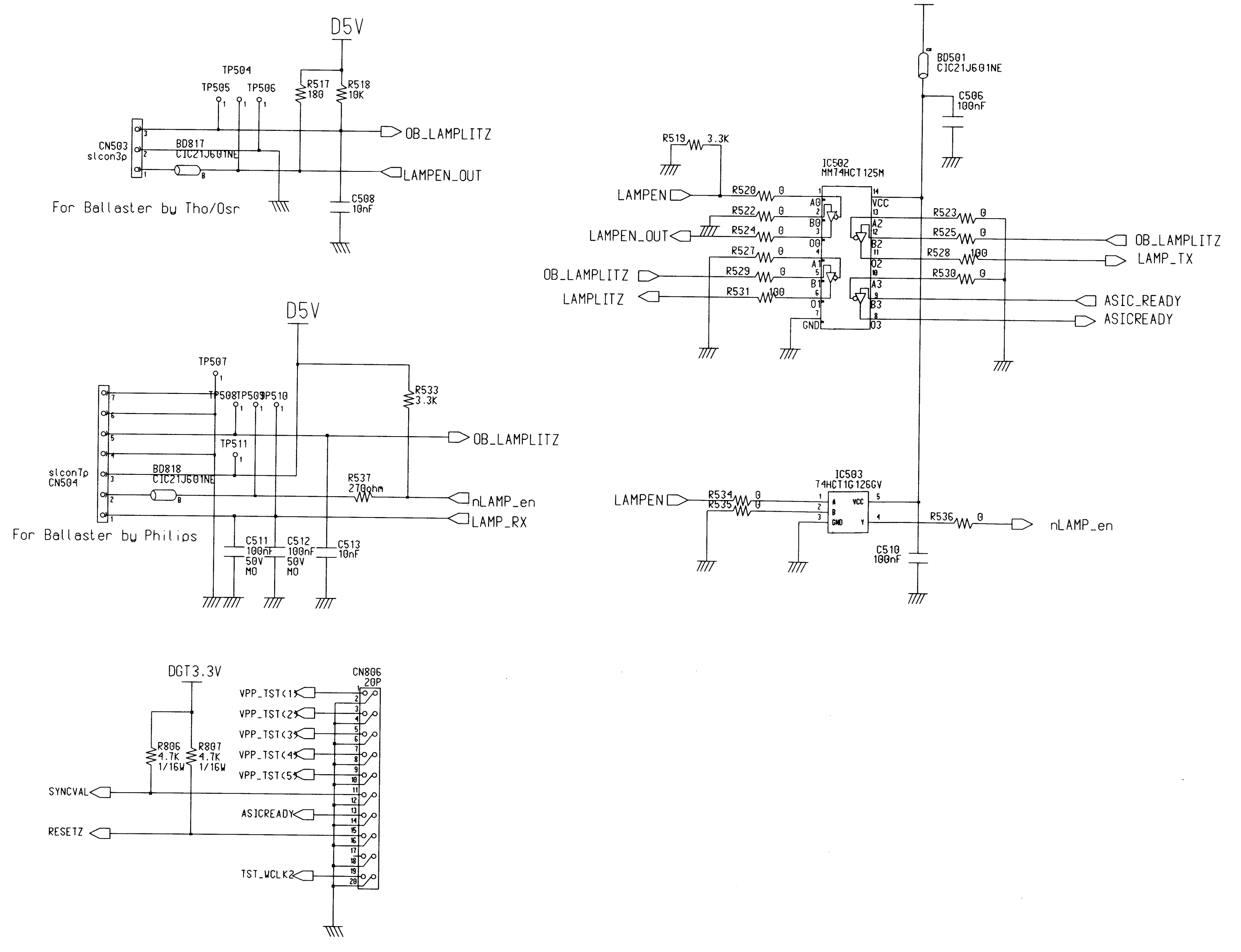
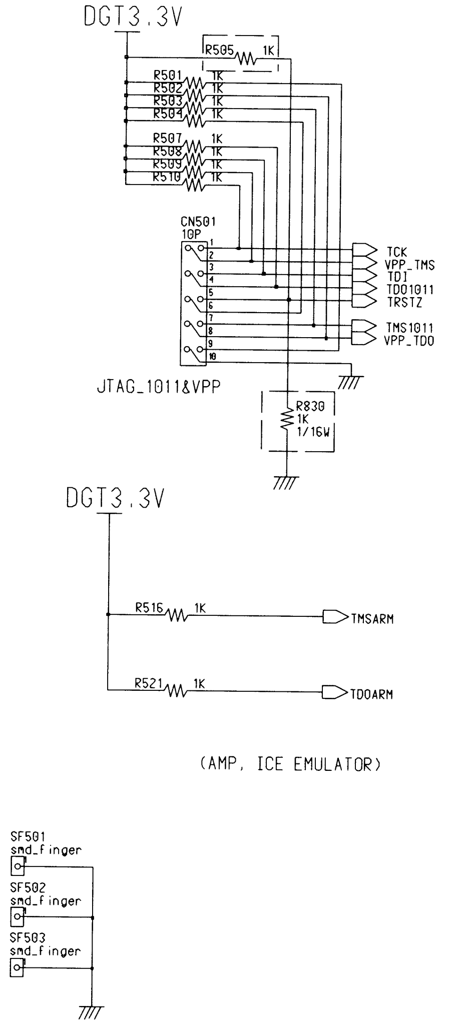
(COLOR WHEEL SENSOR DETECTION)


DGT3.3V
D5V
(CHECK LIBRARY LATER)
(COMPARATOR, CENTER:3.3V)
R506 10K
L501 1.5uH
C501 100nF
C502 10uF
TP501 TP502 TP503
R511 180
R512 33K
R513 10K
IC501 LM393D
R514 100K
OA VCC
IA- OB
IA+ IB-
VSS IB+
C504 100nF
R515 10K
slcon6p CN502
DDP_CWINDEX

JTAG Configuration	R505	R830
Normal Operation	Not Installed	Installed
ARM-ICE Debug	Installed	Not Installed

(LAMP CONTROL)


D5V
TP504
TP505 TP506
R517 180
R518 10K
CN503 slcon3p
BD817 CIC21J601NE
OB_LAMPLITZ
LAMPEN_OUT
C508 10nF
For Ballaster by Tho/Osr
D5V
TP507
TP508 TP509 TP510
R533 3.3K
OB_LAMPLITZ
TP511
slcon7p CN504
BD818 CIC21J601NE
R537 270ohm
nLAMP_en
LAMP_RX
For Ballaster by Philips
C511 100nF 50V MO
C512 100nF 50V MO
C513 10nF
D5V
BD501 CIC21J601NE
C506 100nF
R519 3.3K
IC502 MM74HCT125M
LAMPEN
R520 0
R522 0
LAMPEN_OUT
R524 0
R527 0
OB_LAMPLITZ
R529 0
LAMPLITZ
R531 100
A0 B0 O0 A1 B1 O1 GND
VCC A2 B2 O2 A3 B3 O3
R523 0
R525 0
R528 100
R530 0
OB_LAMPLITZ
LAMP_TX
ASIC_READY
ASICREADY
IC503 74HCT1G126GV
LAMPEN
R534 0
R535 0
R536 0
nLAMP_en
C510 100nF
DGT3.3V
CN806 20P
VPP_TST(1)
VPP_TST(2)
VPP_TST(3)
VPP_TST(4)
VPP_TST(5)
R806 4.7K 1/16W
R807 4.7K 1/16W
SYNCVAL
ASICREADY
RESETZ
TST_WCLK2


DGT3.3V
R505 1K
R501 1K
R502 1K
R503 1K
R504 1K
R507 1K
R508 1K
R509 1K
R510 1K
CN501 10P
TCK
VPP_TMS
TDI
TDO1011
TRSTZ
TMS1011
VPP_TDO
JTAG_1011&VPP
R830 1K 1/16W
DGT3.3V
R516 1K
TMSARM
R521 1K
TDOARM
(AMP, ICE EMULATOR)
SF501 smd_finger
SF502 smd_finger
SF503 smd_finger

6-4 SUB DETECT

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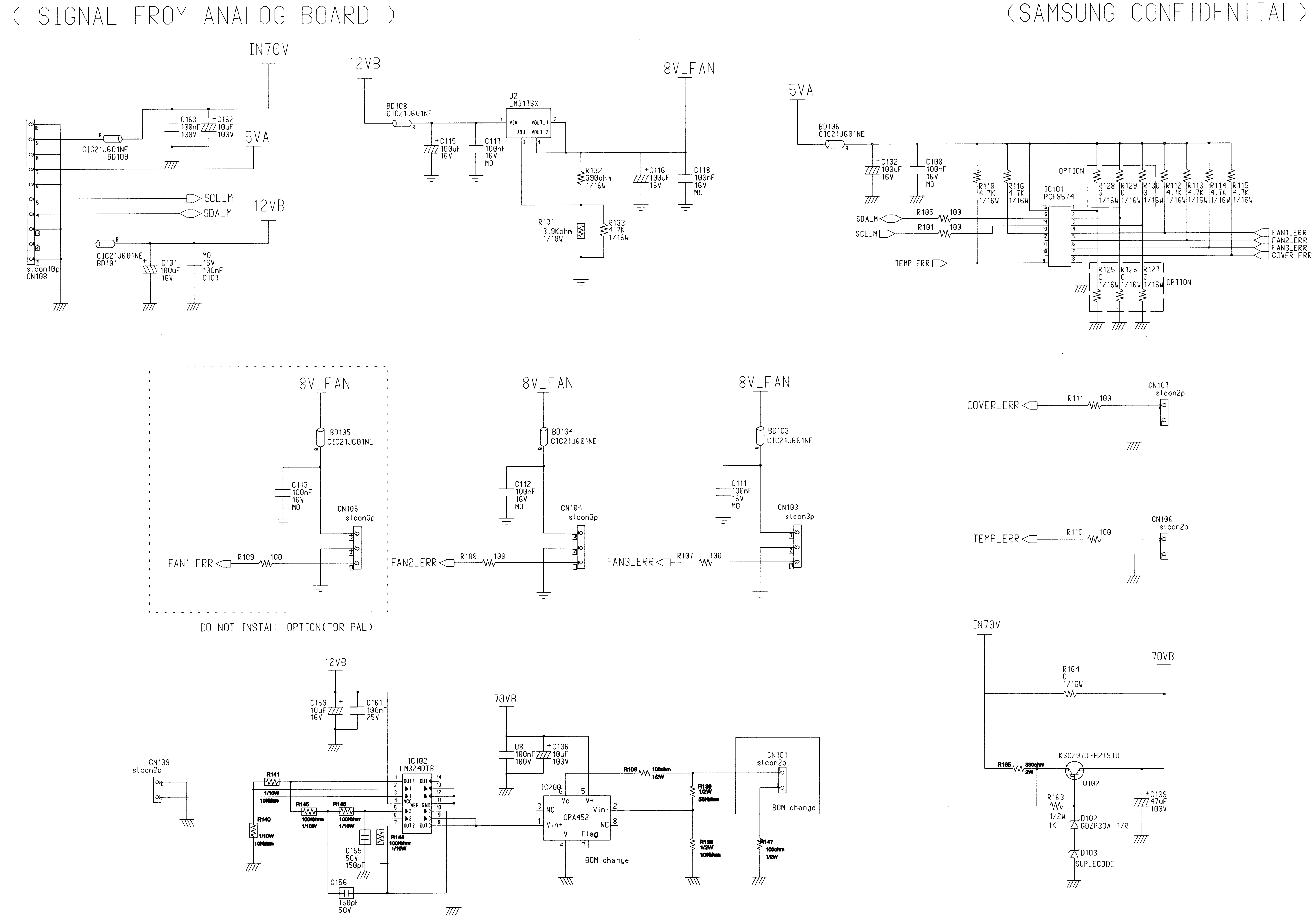
(SIGNAL FROM ANALOG BOARD)
(SAMSUNG CONFIDENTIAL)
IN70V
12VB
8V_FAN
5VA
5VA
12VB
C163 100nF 100V
C162 10uF 100V
CIC21J601NE BD109
SCL_M
SDA_M
CIC21J601NE BD101
C101 100uF 16V
C107 100nF 16V MO
slcon10p CN108
BD108 CIC21J601NE
U2 LM317SX
VIN VOUT.1 ADJ VOUT.2
C115 100uF 16V
C117 100nF 16V MO
R132 390ohm 1/16W
C116 100uF 16V
C118 100nF 16V MO
R131 3.9Kohm 1/10W
R133 4.7K 1/16W
BD106 CIC21J601NE
C102 100uF 16V
C108 100nF 16V MO
OPTION
R118 4.7K 1/16W
R116 4.7K 1/16W
IC101 PCF8574T
R128 0 1/16W
R129 0 1/16W
R130 0 1/16W
R112 4.7K 1/16W
R113 4.7K 1/16W
R114 4.7K 1/16W
R115 4.7K 1/16W
SDA_M
SCL_M
R105 100
R101 100
TEMP_ERR
FAN1_ERR
FAN2_ERR
FAN3_ERR
COVER_ERR
R125 0 1/16W
R126 0 1/16W
R127 0 1/16W
OPTION
8V_FAN
BD105 CIC21J601NE
C113 100nF 16V MO
CN105 slcon3p
FAN1_ERR
R109 100
DO NOT INSTALL OPTION(FOR PAL)
8V_FAN
BD104 CIC21J601NE
C112 100nF 16V MO
CN104 slcon3p
FAN2_ERR
R108 100
8V_FAN
BD103 CIC21J601NE
C111 100nF 16V MO
CN103 slcon3p
FAN3_ERR
R107 100
COVER_ERR
R111 100
CN107 slcon2p
TEMP_ERR
R110 100
CN106 slcon2p
12VB
C159 10uF 16V
C161 100nF 25V
CN109 slcon2p
R141 1/10W 10Kohm
R140 1/10W 10Kohm
R145 100Kohm 1/10W
R146 100Kohm 1/10W
IC102 LM324DTB
OUT1 OUT4 IN1 IN4 VCC VEE_GND IN2 IN3 OUT2 OUT3
R144 100Kohm 1/10W
C155 50V 150pF
C156 150pF 50V
70VB
U8 100nF 100V
C106 10uF 100V
IC200
NC Vo V+ Vin- Vin+ V- Flag NC
OPA452
BOM change
R106 100ohm 1/2W
R139 1/2W 56Kohm
R138 1/2W 10Kohm
R147 100ohm 1/2W
CN101 slcon2p
BOM change
IN70V
70VB
R164 0 1/16W
R165 330ohm 2W
KSC2073-H2TSTU
Q102
R163 1/2W 1K
D102 GDZP33A-T/R
D103 SUPLECODE
C109 47uF 100V

6-5 POWER

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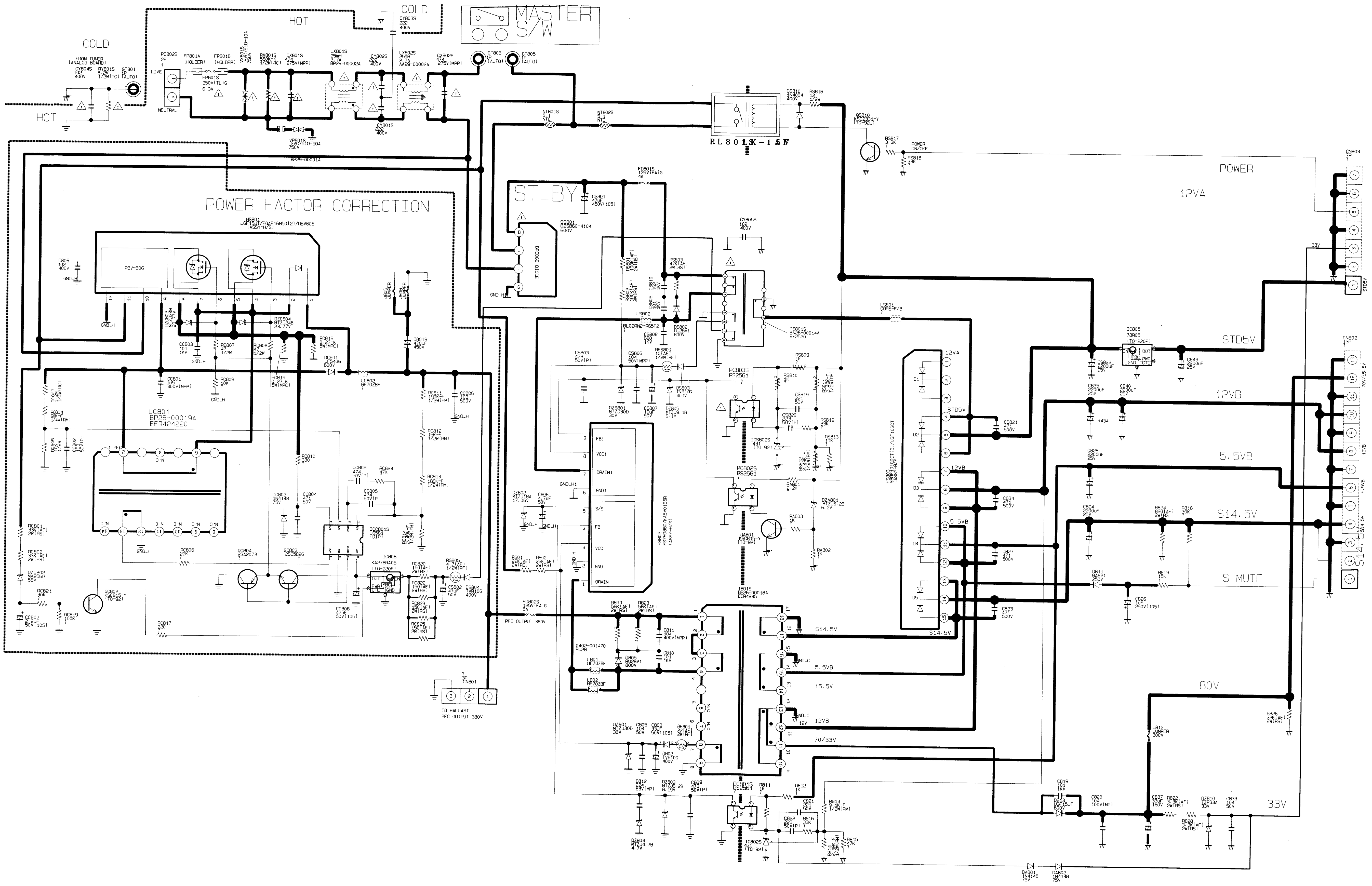
HOT
COLD
MASTER S/W
COLD
HOT
LIVE
NEUTRAL
POWER FACTOR CORRECTION
ST_BY
POWER
12VA
STD5V
12VB
5.5VB
S14.5V
S-MUTE
80V
33V
POWER ON/OFF
TO BALLAST PFC OUTPUT 380V
PFC OUTPUT 380V
S14.5V
5.5VB
15.5V
12VB
70/33V
12VA
STD5V
12VB
5.5VB
S14.5V